February 13, 2017

Ms. Michelle Pirzadeh
Acting Regional Administrator
U. S. Environmental Protection Agency
Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Ms. Pirzadeh:

Enclosed are my comments regarding the Navy's Draft Environmental Impact Statement (DEIS), for additional EA-18G "Growler" operations, on Whidbey Island, WA. I have raised several issues regarding shortcomings of the data in the DEIS, as prepared by the Navy; and hope you will find time to read my arguments. I am taking the liberty of providing you with a hard copy of the comments. Basically, the second oldest town in Washington (Coupeville) needs some assistance, and I have done my best to persuade you of that.

Of particular interest is Section 11 of my comments, which makes the argument that the Growler flights may be damaging the Bluffs on Whidbey Island, an issue not addressed by the Navy in the DEIS.

Years ago, the County and the Navy, jointly, could have avoided the "encroachment" of housing near OLFC. Now, the Navy's position is that the encroachment isn't its fault. There are equities on both sides of that issue, but basically the heaviest weight of burdens and equities is on the side of the little town of Coupeville and its environs that is being threatened by unilateral Navy action. Please understand that the preferred option for the Navy in the Draft EIS is to increase the annual closed loop, low-level flights from **6,100 annually to 35,100,** a 575% increase. That absolutely is the worst kind of noise because of the closed-loop, low-level flights.

I do not advocate closing NAS Whidbey, nor reassigning any Growlers elsewhere. I am not anti-Navy, and even spent 6 years in the United States Air Force as an Officer from 1964 - 69, holding a Regular Commission. I do advocate, however, a permanent solution to the mess, which is at least partially due to Navy action or inaction. Finding a new OLF where people won't be subjected to noise-terror seems to me to be both a reasonable and permanent solution. It also is consistent with much of the NAS Whidbey Training that already occurs in Eastern Washington and in Boardman, Oregon.

If you have any questions, please don't hesitate to ask. You may reach me at home (b) (6) or by cell (b) (6). My Email address is (b) (6) Snail mail is (b) (6), Coupeville, WA 98239.

If you or your staff would like an email version of my comments, please don't hesitate to ask.

Go Dawgs,

(b) (6)

PUBLIC COMMENTS

ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT,

PREPARED IN 2016 BY THE UNITED STATES NAVY,

FOR THE EA-18G "GROWLER" AIRCRAFT OPERATIONS AT

AULT FIELD AND AT OUTLYING LANDING FIELD-COUPEVILLE, WA

The public comments were prepared by

(b) (6)

February 12, 2017

FOREWORD

Each of the 18 Sections comprising My Comments are a direct result of the experiences of myself and my wife (1) after living for 14 years beneath thousands upon thousands of Prowler and Growler FCLP flights at OLFC, listening to the roar of Arrival and Departure flights executed while Navy Aircraft have entered or exited from the closed-loop pattern of flying while engaged in FCLP operations, and listening to the over-flights of aircraft departing or arriving at Ault Field in connection with flights at higher altitudes than those involved with FCLP's; (2) while attending the public scoping meeting held in Coupeville in December 2016; and (3) spending well over one month attempting to read, comprehend, and understand the DEIS' 1,500 or so pages, and (4) reacting to the request for public comments by the Navy, and writing these comments.

My Comments reflect having lost most of the respect that I had gained throughout my adult life, which includes having been being stationed two years at NAS Jacksonville as an Officer in the United States Air Force, growing up with my own individualized Ivory Tower, and having enjoyed the last 14 years flying with my best friend around the Pacific Northwest in a Pilatus PC-12, Bell Jet Ranger Helicopter, and an amphibious de Havilland "Beaver." It is safe to say that I have a love of flying. Nonetheless, I have attempted to put my "emotions" aside and deal with reality as experienced and viewed in the context of my experience of living on Kineth Point, which lies midway between Long Point and Snakelum Point on Whidbey Island near Outlying Landing Field Coupeville (OLFC).

I have not been involved with any group or organization in any respect on Whidbey Island, other than being a supporter of Meerkerk Rhododendron Gardens near Greenbank, and the Whildbey Island Chapter of the American Rhododendron Society. During our time on Whidbey Island, we have transformed an undeveloped lot into one of the finest Gardens on Whidbey Island. Last year, we were one of the host gardens for the Whidbey Island Garden Tour, and approximately 650 people visited our garden during a six-hour window. Our Garden was planned and developed with self-help and we have spent possibly more time than anyone in our backyard, during all of our year on Whidbey. That is important because we gained a great deal of information watching, listening and becoming aware of FCLP flights, pilot idiosyncrasies and tendencies, and altitudes of close-in flying.

I regret that on occasion the "tone" in My Comments is a bit direct, or sharp, or one of frustration, but if the Navy is offended, it is the Navy's fault. Too often I have learned that communication with the Navy leaders has been one-way. The Navy does not listen well. Maybe that is a derivation of Command located other than at and higher than Whidbey NAS. Whatever the case may be, it's time for a change. I hope the Navy can hear my voice and attempt to understand the reasoning in these, My Comments.

JANUARY 25, 2017

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This document (My Comments) was prepared in response to the Invitation for Public Comments on the Draft Environment Impact Statement (DEIS) for EA-18G "Growler" operations at NAS Whidbey Island Complex, with primary focus upon the continued use of OLF Coupeville (OLFC) as it relates to Coupeville and the Civilian Communities surrounding OLFC.

For convenience to the reader, My Comments are segmented and compartmentalized by subject matter and are referred to as Sections. Each section, thus, is separate and distinct. The Sections contain the following subjects:

SECTION 1.

NEPA: THE FEDERAL NATIONAL ENVIRONMENTAL POLICY ACT OF 1969 AND THE UNITED STATES NAVY

The federal National Environmental Policy Act of 1969, as amended (hereafter NEPA), declares **"a national policy which will encourage productive and enjoyable harmony between man and his environment;** to promote efforts which will prevent or eliminate damage to the environment and biosphere **and stimulate the health and welfare of man"**. 942 U.S.C. 4321). The Navy and all branches of the Armed Forces of the United States are subject to NEPA, as are all federal agencies, including the Federal Aviation Administration, which governs civilian and commercial aircraft ventures and endeavors.

In the NEPA, the Congress further declared "that it is the continuing policy of the Federal Government, in cooperation with the State and Local governments, and other concerned public and private organizations, to use all practical means and measures, including financial and technical assistance, **in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirement s of present and future generations of Americans."** That policy is said to be in recognition by Congress of "the profound impact of man's activity on the interrelations of all components of the natural environment" . . . including "population growth" and "new expanding technological advances" . . . and "further recognizing the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man."

My reading of this law and the policy behind the law is that it is an attempt to impose upon entities such as the Navy the monumental administrative process to give due regard and respect to all persons or entities that have an interest in whatever the Navy is proposing. There are more interests involved in this DEIS than merely Navy interests and NEPA requires those interests to be given due regard and respect, but assumes that the Navy's proposals and self-analysis will be defensible in the light of other moral or legal requirements expressed in NEPA, as indicated above, and in the Constitution of the United States. In that regard, all laws of the United States and the States, as well as the process of administering or interpreting federal laws, are subject to the requirements of the United States Constitution. This includes the manner in which the United States Navy administers and applies federal laws, including NEPA. While the Navy certainly must give strong, unyielding attention to its mission and the welfare of the United States, it does not mean that there should be zero consideration by the Navy to alternative locations for the conduct of FCLP' operations conducted by NAS Whidbey, if conducting them at the two aircraft landing facilities available to and under the control of the Navy would run afoul of, or be contrary to, or in conflict with, the mandates of NEPA or the Federal Constitution. Especially, as here, when the Navy is proposing to increase the number of FCLP's per year at OLFC from 6,100 up to 35,100, a monstrous increase of up to 575%, not including any FCLP's that would occur if the

Navy also contracts with foreign governments to train foreign pilots to land on aircraft carriers at OLFC. I point out, parenthetically, that the population of Whidbey Island already reflects the presence of at least 50 families of Canadian pilots, and there exists Navy news that dozens of Growlers have been purchased by Australia and that the training of those foreign pilots might well occur at OLFC as well. The Navy's expectations, inherent in its DEIS, of imposing a catastrophic burden upon the economy and unique longterm lifestyle that is Coupeville and its environs (I note that Coupeville is the second oldest town in the State of Washington) is an absolutely unrealistic expectation on the part of the Navy. It also represents a direct violation of federal law and policy reflected by and in the NEPA , indeed, is an indictment of the lack of objectivity and the lack of consideration of and for the rights of citizens, as required by NEPA and the United States Constitution, as discussed elsewhere in My Comments.

Ask the Navy why they don't just add Navy Officer housing on Navy lands around OLFC and make that housing available or mandatory to Growler Pilots and their families. One answer is that that would be silly because there presently are no Navy Pilots or their families who have chosen to live anywhere close to OLFC. Indeed, each of the Navy Officers involved in the so-called "public scoping" meeting conducted in December 2016 in Coupeville (other than the Commander of NAS Whidbey whom I believe is obligated to live on NAS Whidbey, but I was unable to verify that assumption), as well as the community representative from Virginia , was asked if they lived near OLFC or any OLF and the answer was emphatically "no" for each person. The Officer from Virginia indicated that she commutes 11/2 hours each way to work and back, to avoid FCLP's.

Then, why oh why does not the DEIS contain a discussion of efforts made to find alternative OLF sites, so that even NAS Whidbey might be relieved of any FCLP's? Thinking outside the proverbial box is an essential ingredient to satisfy the rigorous attempt by NEPA to keep in balance the relative tensions of the needs of the Navy and the rights of Americans not to be subjected to levels of noise that is bound to cause greater life-endangering health conditions and hearing losses, as well as untold, undiagnosed environmental concerns, including the poisoning of ground water drawn by civilians' water wells that already exceeds federal standard for more than one poison used by the Navy or its contractors at the OLFC.

Instead, as administered by the Navy, NEPA permits the Navy to select the data that is presented in a DEIS regarding its proposal (In this DEIS it is presenting 10 variations of its plan), permits the Navy to select the metric by which to flavor the data, analyze the data, present the data to the public. I note in particular that the DEIS is in a form containing an overwhelming amount of highly technical data, much of it being repetitive and encompassing 1500 or so pages, thereby making it unnecessarily difficult for the average person like me to comprehend and understand. For example, the DEIS refers back to numerous Tables, Figures and Charts and there are two volumes that comprise the DEIS and each volume contains 8 to 10 separate and lengthy subparts, as a Summary, Chapter, or Appendix, comprising about 1500 pages or so.

One hardcopy of the DEIS is made available in the Coupeville Library for the approximately 6,000 or so people who live in Coupeville or its Environs. The point is that the DEIS must be read in the online version, and reading or referring back to a particular Figure, Table or Chart, to understand the Navy's Narrative in the DEIS is time consuming, awkward, and nearly impossible, but maybe that also is a Navy strategy and tactic, in order to reduce meaningful analysis and public comment. Oak Harbor Library has two copies, which is understandable. Based on the public turnout for the scoping meetings, maybe Coupeville should have had more? It also is great that the following communities also received the same number as Coupeville: Lopez Island, San Juan Island, Orcas Island, Camano Island, Geumes Island, Port Townsend of Jefferson County, Jefferson County Library, Port Angeles, Sedro-Wooley, Sequim, Bellingham, Seattle, Mount Vernon, La Conner and Anacortes. I draw no conclusions from this information, as there is no need.

The DEIS also signifies Navy bias by the way it is written to suggest that none of the Navy's proposals would have a significant impact on the status quo, and to make a final decision regarding the 10 variations. There also is no independent analysis by any person or entity qualified to perform an independent analysis of the data or the pre-conclusions set forth in the Navy's DEIS. Please assume, just for a moment, that there are significant problems with the Navy's proposals, either in moral or equitable terms or that the DEIS contains seriously flawed information and the Navy relies on that information. Then consider the reality that the Navy, in administering the mandates of NEPA, imposes the monstrous burden upon the person who objects to the Navy's proposals, of proving, in a short period of time, that the proposal is immoral, inequitable, unconscionable, unlawful, fatally flawed, or whatever. That is a process that may subject civilians who live in Coupeville or its Environs close to OLFC to burdens and costs in violation of the Substantive rights of both Procedural and Substantive Due Process of Law guaranteed by the Fifth Amendment to the United States Constitution as well as the "Unlawful Takings" provision of the Fifth Amendment.

That NEPA process, as proposed in the DEIS to be administered by the Navy does not ensure either **Procedural or Substantive Due Process as required by the Fifth Amendment** to the United States Constitution to the civilians destined to be seriously impacted, culturally and economically, as well as collectively and individually. Further, it is highly likely that implementation of the Proposals would constitute "a "taking" of private and perhaps even public properties without just compensation, as required by the Fifth Amendment.

Some of the reasons why that is a near certainty, based on the so-called facts contained in the DEIS, are set forth in other of My Comments, attached.

If you would like to read another draft EIS, prepared pursuant to NEPA, that reflects a cooperative and flexible attitude on the part of the preparer, I invite you to take a look at Hawaii Volcanoes National Park's Mission Critical Administrative Aviation Plan and Environmental Assessment (plan/EA) for managing the use of administrative aviation over the park, released in February 2014. One of its statements is that it "provides a

decision making framework for managing the Hawaii Volcanoes National Park" and even contains an upfront "Preferred Alternative."

SECTION 2.

DNL and ITS VALUE

It is often said and quoted that "noise is defined as unwanted sound. In other words, noise is sound that disturbs routine activities or quiet, and/or causes feelings of annoyance. Whether sound is interpreted as pleasant (e.g., music), or unpleasant (e.g., jackhammer) depends largely on the listener's current activity, past experience, and attitude toward the source."

"Sound is transmitted by alternating compression and decompression in air pressure. These relatively small changes in atmospheric pressure are called sound waves. The measurement and human perception of sound involves two physical characteristics—intensity and frequency. Intensity is a measure of the strength or magnitude of the sound vibrations, and is expressed in terms of the sound pressure level (SPL). The higher the SPL, the more intense is the perception of that sound. The other characteristic is sound frequency or "pitch"—the speed of vibration. Frequencies are expressed in terms of cycles per second or hertz (Hz). Low frequency sounds might be characterized as a rumble or roar, while high frequency sounds are typified by sirens or screeches. Noise analysis accounts for both of these characteristics in the units used to measure sound."

"The human ear is sensitive to an extremely wide range of sound intensity, which covers a relative scale of 1 to 100,000,000. Representation of sound intensity using a linear index becomes difficult because of this wide range. As a result, the decibel—a logarithmic measure of the magnitude of sound—is typically used. Sound intensity is measured in terms of sound levels ranging from 0 dB, which is approximately the threshold of hearing, to 130 dB, which is the threshold of pain.

"Because of the logarithmic unit of measurement, decibels cannot be added or subtracted linearly . . . however, the following apply:
• If two sounds of the same level are added, the sound level increases by approximately 3 dB. For example: 60 dB + 60 dB = 63 dB.
• The sum of two sounds of a different level is only slightly higher than the louder level. For example: 60 dB + 70 dB = 70.4 dB.
• Sound from a "point source," such as an aircraft, decreases approximately 6 dB for each doubling of distance.
• Although the human ear can detect a sound as faint as 1 dB, the typical person does not perceive changes of less than approximately 3 dB."
• A 10 dB change in sound level is perceived by the average person as a doubling, or halving, of the sound's loudness."
"A-Weighted Decibel. Humans are most sensitive to frequencies near the normal range of speech communications. "A-weighting" reflects this sensitivity by emphasizing midrange frequencies and de-emphasizing high and low frequencies (see Exhibit F-3). Since the A-weighted decibel (dB) provides a better prediction of human reaction to environmental noise than the unweighted decibel, it is the metric most frequently used in noise compatibility planning."
(https://www.faa.gov/airports/airport_development/omp/eis/feis/.../Appendix-F.pdf)

One of the features and factors for assessing and evaluating OLFC, in the context of a proposal that would increase the number of FCLP operations from 6,100 by up to 575 percent to 35,100 FCLP operations per year, is the use of "data" to quantify the noise levels that would result from the approval of one of the 10 proposals contained in the DEIS. The DEIS declares that "the DNL metric is the energy-averaged sound level measured over a 24-hour period, with

a 10dB nighttime adjustment." (See Sec. 3.2.2.1, Volume 1, DEIS). While "noise", such as Growler noise, can be and has been measured using sound measuring equipment, for the purposes of this DEIS or any other of several DEIS's prepared and by the Navy for other proposals involving the Prowler and the Growler as well as other aircraft and the 2005 Air Installations Compatible Use Zones (AICUZ), no actual noise measurements have been collected, or at least not referenced in this DEIS. Instead, projections of Growler noise by computer software was used, first to project noise that is subsequently used to project and present "noise contours" for the geographical area subject of the DEIS. Thus, noise contours are included in the DEIS to indicate projected levels of noise within each contour of both Ault Field and OLFC.

More specifically, the DEIS indicates that the "DNL contours are calculated based on modeled aircraft noise events using Noisemap [a software program used by Wyle Laboratories, the private business hired by the Navy to do the noise and contour modeling. Thus, it follows that the validity of the data upon which the choice of one of the 10 Alternative Proposals will be based, assuming that choice has not yet been made, is dependent upon the quality or of the data that was fed into the Noisemap computer program as well as the variable settings of that variable and flexible software. Neither the data nor the variables are disclosed in the DEIS or otherwise offered by the Navy for review or analysis.

The Navy, in the DEIS, goes on to say that the U.S. Department of Defense uses Noisemap as the accepted standard noise modeling program for assessing potential noise exposure from fixed-wing aircraft; and that Noisemap is routinely updated and validated through extensive study to provide the best possible nose modeling results for these applications. Again, it says nothing about the integrity of the data that is fed into Noisemap, nor about the variables within the software.

In my one-man attempt to read and digest the DEIS, I made a mental note to do some "digging" to see why there are so many apparent attempts made in the DEIS to say that Noisemap is the most reliable way to handle the data. My search found some holes, that may be significant. Lastly, no computer program in terms of sound exposure is anything but guesswork, some of which likely is educated or experienced but none of which involves real honest-to-goodness facts. As a "tool" it can be used to support a desired conclusion or it can be fully objective. If it is the latter, then there should be no biases.

A 3-page document I discovered online declares that it was written by Wyle Laboratory researchers and states as follows: "The following section was compiled by researchers at Wyle Laboratory" but curiously the document has no heading, Wyle Laboratory logo, or author-name attribution, and is not dated (which in an of itself is no different from numerous Navy website documents I have read in an endeavor to better understand "sound". Especially in this new, unsettling era of "fake news" and "alternative facts", I thought that should be noted. Further, the document doesn't state the purpose of the article and draws no conclusions. However, I would characterize the purpose of the document as a "conscience" statement of a group of Wyle researchers, decrying the continued reliance by entities such as the Navy upon a 38-year old private study (by Schultz), in view of the fact that even the Author of that 38-year old study, Schultz, has updated and clarified the old study with a much newer study, as indicated below. I mention it, however, because in the DEIS, the lowest 24-hour average DNL-level used for drawing noise exposure contour lines in the DEIS is the range of 65 to less than 70dB DNL. In the DEIS, the sound/noise contours for the various Alternatives under consideration includes three ranges: 65 to less than 70 dB DNL, 70 to less than 75 dB DNL, and equal to or greater than 75 dB DNL.

I would also point out that there is an article, published in the Noise Control Engineering Journal (Jul-Aug 2005), which summarizes the 2005 positions of numerous Federal entities that

recommend minimum day- night average sound levels of about 65 dB, as in the DEIS. He also points out that the EPA is one of the agencies that recommend a DNL of 55 dB "as the level requisite to protect health and welfare with an adequate margin of safety"; the the National Research Council, Committee on Hearing, Bioacoustics ,and Biomechanics has selected DNL as the preferred noise metric and with a level of 55 dB to represent the beginning of noise impact in residential areas; and basically the same result was reached and recommended by the Federal Energy Regulatory Commission, the World Bank, the American National Standards Institute (ANSI), and the International Organization for Economic Co-operation and Development, except that it would use a DNL limit of 50 dB in rural areas, like central Whidbey near the OLFC. The World Health Organization (WHO) recommends "a 16-hour daytime average sound level of not more than 55 dB and, approximately an 8-hour nighttime average sound level of not more than 45 dB to prevent "serious annoyance" in residential areas (but if you add a 10 dB penalty, as is customarily done for nighttime calculations that would increase the 45 to 55 dB, except the average limit would be for an 8-hour period of time.

The Navy follows the DoD example of using the 65 dB DNL, as first set by the Federal Interagency Committee on Noise (FICON). Paul Schomer, in his article, declares that "FICON generally understates the average percentage of a community that is highly annoyed. At a DNL of 65 dB, the average percentage of a community that is highly annoyed by aircraft noise is 28% . . .while the corresponding prediction by . . .FICON . . .is 12%." The 65 DNL, preferred by the Navy, includes zero margin of safety for Civilians living near OLF, per the EPA. That is hardly comforting.

Back to the DEIS. In support of the decision to include only three DNL ranges, the DEIS states that "DoD recommends land use controls beginning at the 65 dB DNL level" and "research has indicated that about 87 percent of the population is not highly annoyed by outdoor sound levels below 65 dB DNL . . .[and that] "most people are exposed to sound levels of 50 to 55 or higher on a daily basis." In other words, there is virtually no reason to include a lesser range because it would not apply to a significant percentage of the affected population. Then, the DEIS draws this conclusion "[t]herefore, the 65 dB DNL contour is used to help determine compatibility of military aircraft operations with land use, particularly for land use surrounding airfields, and in the lower threshold for this analysis." That conclusion does not follow logically from the preceding quoted sentence to which it is intended to reference. The DEIS doesn't mention the fact that the 38-year old Schultz study was **not** a consideration solely of aircraft noise. Indeed, it combined with aircraft noise, annoyance surveys involving road noise and railroad noise, both of which have been determined in numerous studies to be less objectionable than noise emanating from aircraft, especially military aircraft.

It would seem that the intransigence of the Navy, to move from outdated and invalidated studies, has something to do with other factors than community annoyance. Like forcing unconscionable levels upon Coupeville and its Environs even when there is no economic benefit and when that Navy action may well devastate Coupeville's economy (See Sections 3 & 4, My Comments). I also point out that during the same time that commercial aircraft has become quieter, military aircraft has become faster and louder. Noise is a factor in the design of commercial aircraft. Noise isn't a design element for military aircraft.

In any event, the continued use of a 65-70 DNL is a reality notwithstanding it's scientific status as a too-high minimum standard, and notwithstanding that fully **28% of people will be "highly annoyed"** by noise from aircraft within the 65-70 dB DNL range, which is more than double the percentage referenced in the DEIS (100% less 87% not highly annoyed in a range below 65 dB DNL = 13% that are highly annoyed). The new studies also say that for **"an outdoor DNL of 55 dB, the percentage highly annoyed" is "12%" and that for a DNL for 60dB is 19 percent**, which is quite a bit higher, more than double the percentage of people said in the

DEIS to be highly annoyed for the 65-70 dB DNL. Notwithstanding the DEIS use of 65-70 DNL as the threshold for "highly annoyed, this reference in the DEIS to the 55 dB DNL level seems that the DEIS maybe wants to use the higher level, but is worried about not using the lower 55 dB DNL level. There is no logical reason for the reference in the DEIS to the 55 dB DNL level in the context in which it appears. Further, the DEIS makes no mention of how any of the DNL levels relate to actual decibel levels, or how DNL's are calculated.

I point out that the contour lines for a 55 dB DNL (which was sufficiently important for the Navy to attempt to discredit or disregard its use) as quoted and indicated above, would show significant impact for OLFC under Proposal 1A, 2A, or 3A,. It would show that imposing 80% of all FCLP operations upon the neighborhoods surrounding OLFC as per Alternative 1, Scenario A, would place the entire city limits of the Town of Coupeville, as well as the area known as Juan de Fuca, which is on the West shoreline of Penn Cove (the business district of Coupeville is on the East side of Penn Cove) in all likelihood, within the 55 dB DNL range, as well as additional properties south of Runway 32. In contrast, the contour lines drawn for 60 dB DNL under the No Action proposal would continue to exclude some of the population of the Town of Coupeville (see, for example, the dotted dark blue contour lines in Figure4-2.5).

A comparison of the contour lines drawn for Ault Field and OLFC is another example of how the DEIS is biased in favor of supporting a decision to impose a far greater noise burden upon the OLFC vicinity, regardless of which of the four Alternatives is selected (i.e., the so-called "No Action Proposal", which literally is an Alternative for the reason that 6,100 FCLP operations at OLFC has never been approved under the requirements of NEPA, or Alternative 1, 2, or 3). Notice that the contours drawn for Ault Field have "lobes" that extend out for about 10 miles, which gives the Ault Field contours a "star" kind of look. No similar lobes were drawn on the contours for OLFC. The DEIS data suggests that the lobes for Ault Field are drawn because of the departure flights and arrival flights at Ault Field for Growlers that fly to and from OLFC, and thus also are reflected in Table 4.2-1, which contains "Estimate of Acreage and Population within the DNL Contour Ranges" for Ault Field and OLFC." To the extent the "lobes" are drawn over land near Ault Field, the acreage and population affected under the lobes at Ault Field are increased to that extent. You might say that those flights should count and be reflected in the Ault Field contours. While I don't disagree, there is no logical reason the same lobes would not apply in the contours drawn for OLFC, if the proper data had been fed into the NOISEMAP program. Consider this: For every FCLP-related flight arriving at Ault Field (and is reflected in the contours), where that flight exited a "closed loop" FCLP session and departed OLFC, but is not counted or reflected in the contours for OLFC even though it is an actual flight and is in addition to the closed loops entailed in a FCLP. Similarly, flights that depart Ault Field (and that are counted and reflected in Ault Field contours, acreage, population and other operations flights, per Table 3.1-3 and Table 4.2-1) and that arrive at OLFC are not counted, even though they are actually noisier than FCLP loops because arrivals generally are flown at a considerably higher velocity than flights in FCLP closed-loop patterns and are well under 500 feet. Footnote 3 to Table 3.1-3 in the DEIS, reads as follows: The term "Other Operations includes Touch and Goes, Depart and Re-enter, Ground Controlled Approaches, and Carrier Controlled Approaches" at Ault Field, but not at OLFC. Ault Field is credited with 53,100 Other Operations flight per year and OLFC is credited with ZERO Other Operations flights involving Growlers. The number per year would be the number of Sessions flown on a Flying Day multiplied by the number of Growlers in each Session. If the data was intended to be slanted to make the facts seem different from what they really are, the DEIS reflects more than one way to accomplish that. This makes the DEIS, in my opinion, a disingenuous Navy document.

The presence of lobes for Ault Filed but not OLFC increases the number of acres to which the sound contours apply. In the case of Ault Field, the lobes are over both land and water. I wouldn't be surprised if you told me that water is included as acreage. But that would be ridiculous as a basis of concluding that the contours affect more acreage around Ault Field

than OLFC. However, apparently it is a big deal to at least one former Navy Commander. Former Commander Nortier, in a Declaration filed in the United States District Court for the Western District of Washington in an action against the Navy, regarding the use of OLFC, declared that "[t]he population surrounding Ault Field is greater than that surrounding OLF Coupeville, which means noise impacts from aircraft operations at Ault Field impact a greater number of people than at Coupeville." My reading of that quotation is that former Commander Nortier believes it would be more just to saddle Coupeville than Oak Harbor with more of a FCLP burden because there are more people in Oak Harbor compared to Coupeville. He doesn't mention categories of people, for example military or civilian, employees at NAS Whidbey, military personnel stationed at NAS Whidbey, time of the day, or any other pertinent fact to give clarity if not credence. He also does not mention comparative economic differences between the two communities, the fact that one is virtually totally dependent upon NAS Whidbey for jobs, school money and housing rentals while the other has virtually nothing to do with NAS Whidbey other than getting the noise from FCLP's. He doesn't mention the fact that Coupeville is substantially reliant upon Tourism to bolster its economy and its unique nature as the second oldest town in Washington or that tourists will flee is more noise is dumped involuntarily upon Coupeville.

There's more. The DEIS contains estimates of the "Estimated Aircraft DNL at POI for the Average Year No Action Alternative" (Table 5-5). I searched in the DEIS for similar estimates for each of the other Alternatives and Scenarios (9 in total) and found none. I can't explain. Those estimates might be revealing as to whether increasing the FCLP's at OLFC by as many as 575 Percent of 6,100 would move the DNL year-long average, or expose the average used simply as a way to dilute beyond belief the actual noise impact, in that context. In any event, the highest POI on the list for any location listed is a POI near Ault Field, namely Sullivan Road, which shows a quite high DNL of 90. It is difficult to comprehend, in a more familiar decibel context, just what a 90 dB DNL means. Nothing in the DEIS makes that easy. It is as though the Navy prefers to obfuscate the real effect of a 90 dB DNL. in contrast, the highest DNL for any POI location for OLFC is Admirals Drive, an area with scores of houses in the neighborhood, with a DNL of 79.

We all know that Admirals Drive (the actual terminology used is "Admirals Drive and Byrd Drive", which is an intersection in the community of Admiral Cove, a community of about 400 homes) is a virtual small city by itself. We also know that Admirals Drive is located just South of Runway 32 and is subjected to very high levels of sound measured in decibels. The DEIS says that the highest level, expressed in decibels is 118 decibels, SEL (sound exposure level), which you can find an explanation for online, quicker than in the DEIS. For Sullivan Road the SEL is 121 dB SEL What do we know about Sullivan Road? It is adjacent to Runway 25 and close to the intersection between Runway 25 and Runway 07 and is very close to the northerly geographical boundary of NAS Whidbey . Comparing its overall impact on people living below the POI location, one Internet site says there are **three** people who live on Sullivan Road who are registered to vote (so there may be a couple more unregistered people?). In The DEIS, Sullivan Road is the closest POI to any runway at Ault Field or at OLFC. There is no POI at OLFC that is as close to either Runway 14 or 32. But there is a road, similar in geography to Sullivan Road, namely Keystone Hill Road, which is just to the west of the OLFC westerly boundary (and it only has maybe a dozen houses, too).

It is also an interesting fact that the average DNL for the 5 POIs near Ault Field is 68.2 and the average for the four at OLF is 63.5. I know that DNL numbers don't lend themselves to averaging in pure mathematical terms because the measurement of a decibel is not linear. Sound loudness doubles every 3 dB, so it would be essential to compare apples to apples instead of to prunes. In comparing Ault Field's 60 dB DNL contour line with that of the 60 dB DNL for OLFC, it would seem to me that the comparison would be totally, absolutely flawed

unless careful consideration is given to the comparative locations of the POI's in geographical terms. Otherwise, what would prevent someone from looking at contours and saying "fix them to show that the contours are wider and have more adverse impact at Ault Field."

It is no big deal for a computer software program to have settings that would equalize the POI's in numerous ways. But what we know is that the POI's between Ault Field and OLFC yield differing results from which people like former Commander Nortier drew conclusions. I'm not saying the figures are disingenuous, but I'm not saying they are not, either. But I will say that given the superficial narrative of former Commander Nortier, made when he was the Commander of NAS Whidbey, is at best puzzling and feeds my opinion that the DEIS is not a document in which I have much confidence.

Another aspect of my suspicions about the validity of the contour lines drawn for purposes of the DEIS results from a visual analysis of the POI's. For example, It is difficult to understand how the DNL for Skyline, a residential neighborhood POI on Fidalgo Island near the northwest corner of Fidalgo Island and situated several miles from Ault Field and approximately 20 miles from OLFC has a higher DNL, 56 dB, for the No Action Alternative than the Cox Road and Island Ridge Way POI near OLFC, where the computer-prescribed DNL is said to be 51. There are no FCLP flight tracks close to that the Skyline POI, although the Figure 3.1-3, that shows arrival and departure flight tracks for NAS Whidbey, shows departure flight tracks near Skyline. But even if the DNL for the Skyline POI entered into the DNL calculation, but similar flight tracks over the OLFC POI's are not data included in calculating DNL for the OLFC POI's, which I believe to be true, then that would be further evidence that the DEIS is a biased document with a hidden agenda and is a disservice to the Community of Coupeville and its Environs.

It is further evidence that the impact of all of the proposals and scenarios are biased in favor of imposing the biggest noise burden possible upon Coupeville and its Environs and making it seem that the burden is slight and of "No Significant Impact." In that regard, I wish to point out the, in Section 3.2.4.1 of the DEIS, the narrative states, after describing why the "lobes" for Ault Field contours extend 6 to 10 miles from the four Ault Field runway endpoint, this about OLFC: **"The DNL contours at OLF Coupeville are generally driven by the FCLPs conducted at" OLFC** [Emphasis added}.

For all of OLFC, there are no arrival or departure flight tracks shown on any figure provided in the DEIS, although as discussed above, there are both arrival and departure flights that make a heckuva lot of noise because of low altitude and higher velocity, as compared with FCLP closed loop flights, during the arrival at OLFC and during the departure from OLFC and often that noise level lingers and lingers. It isn't silent. Moreover, at Cox Road, there would be noise from FCLP operations when Growlers are using Runway 14 and execute a left turn after the "Go" portion of the FCLP. The narrative for the discussion about DNL Noise Contours also contains a footnote 6, which reads "These DNL Noise contours were modeled specifically for this analysis to determine the change in the noise environment related to the Proposed Action; therefore, they differ from the official noise contours currently on record, discussed in Section 3.5.1.2, Regional Land Use and Land Use Controls)." Shouldn't they be modeled both ways, for comparative reasons?

Again, to me, the DNL's attributed to the POI's for Ault Field and for OLFC suffer in terms of credibility.

Another unexplainable aspect of the POI's is that there are 5 selected for Ault Field and 4 for OLFC. Of those selected for OLFC, 3 of the 4 are outside of the Runway 32 that has been used in the past for 70% of the FCLP's. at OLFC Someone chose 3 of 4 in the area that gets

30% of the FCLP's? That is a significant reason for why the relative average for OLFC is 4.7 dB DNL lower than for Ault Field. Considering that the intensity of sound levels double for every 3 decibels, 4.7 dB DNL is significant.

My suspicion is that there are many additional "issues" associated with the data resulting from NOISEMAP and the computer. It is highly likely that I am not smart enough nor do I have sufficient time or energy to discover all of them. Someone, with authority needs to step up and tell the Navy that enough is enough. I wish I had that authority.

Another aspect of the Science of using DNL's in the context of military aircraft is that the primary force in combatting aircraft noise has been the FAA. The FAA has been very effective in effecting substantial reductions in commercial airport noise at the same time military aircraft noise has been increasing. As discussed elsewhere in My Comments, the noisiest commercial aircraft, over time, has been replaced. Military aircraft noise has never been more intense. Indeed, the EA-18G is at the top of the Noisiest Military Aircraft, along with the F-18E/F, which is the airframe used in building EA-18G Growlers. My point here, merely is to point out that the FAA metrics and noise discussions are no longer directly translatable to understanding the dimensions of noise from military aircraft. I located a map from the Massachusetts Institute of Technology (MIT) website that suffices to compare the noise contours for two commercial airports North Chambers Field and Norfolk International Airport, with two Navy "airports" (NAS Oceana and NALF Fentress.) The contours for the commercial airports shown in DNL are absolutely dwarfed by the contours for the two Navy facilities. As you consider the use of contours in the context of OLFC, the effect of the noise cannot be understood in the context of any vision of noise regarding your experience with commercial airport. One context is Goliath, the other little David. One is a Giant Giant, the other not so much See Map, attached to this Section). The actual reality of the burden imposed upon Civilians living below FCLP's at OLFC is tantamount to living with noise terror.

Lastly, I would like to take a look at the concept of calculating DNL for the purpose of drawing attention to the many variables that go or should go into that calculation. Some general principles are these, derived from Quiet Skies NorCal 2016, from their website:

- In a normal environment, a 3 dB change is the general threshold of detectability.
- An increase of 3dB is a doubling of the sound energy.
- An increase of 6 dB is an increase in sound energy by a factor of 4.
- An increase of 10 dB is an increase in sound energy by a factor of 10

In a typical case of comparing two or more DNL's or calculating even a single DNL, there are several variables in that calculation, for an EA-18G, and include:

- The noisiness of the Growler at a certain distance, such as the distance of a POI from a Runway, measured in decibels.
- A penalty if the Growler is using thrust or engaged in a powered landing, to contrast a Growler flying with less throttle, usually up to 10 dB, but individual parameters for the EA-18G might be precisely revealing in that regard.
- Altitude is a factor when comparing 2 Growlers. An Growler at 250 feet will be perceptibly louder than one at 1,000 feet, for example.
- Horizontal distance from the flight track.
- Sound duration in time in seconds or minutes.
- SEL, measured in decibels, which is the single event noise metric, and typically is higher than the peak loudness.

Any of those elements, if changed, will affect DNL calculations. My only point here is to acknowledge the complexity of calculating DNLs. Reliance on DNLs requires a bit of faith or

confidence and if there are any errors, they should be on the side of too much clarity, when soliciting public comments from the public. Especially if a DEIS proposes 10 proposals for consideration and public comment.

Compared to actual noise measurements, DNL likely is not as valid in the context of drawing contour lines for evaluating noise associated with any particular proposal or alternative. Noise contours drawn utilizing actual measurement of noise might well differ significantly with those included in or inferred from data in the DEIS.

In terms of measuring community annoyance, it likely would have predictability value in projecting community annoyance, especially the "highly annoyed." In part, that is because there are a lot of studies regarding annoyance and the experience of having used DNL enhances public predictability. Most of the surveys, however, involve commercial aircraft, not military aircraft. Moreover, FCLP's involving thousands of similar closed loop flights on a "racetrack" resembling flight pattern are a far different series of events than comparing an arrival or departure flight. They are the absolute worst flights and represent a serious danger to the health of Civilians living below FCLP operations. Further, commercial aircraft over the last 50 years have been designed to be and are much quieter, while military aircraft have never been noisier, louder or more intrusive.

In the context of Coupeville and its environs, there are some real dangers in understating annoyance factors. That is because of the importance of a continuing stream of Tourists to the Coupeville economy, which economy has little reliance upon NAS Whidbey or the Navy. In view of the many instances in which studies have validated the use of 50 or 55 dB DNL thresholds to measure community annoyance, and because the Schultz study of 1978 has been updated and modified by Shultz himself, and because almost all federal agencies already have shifted to the 55 dB DNL threshold to predict community annoyance, it makes no sense and defies reality to continue to represent that the Schultz is the basis for adhering to the 65 dB DNL threshold for predicting the"highly annoyed." As applied to Tourists, whose choices to come to Coupeville feed the Coupeville economy, it also seems unreasonable to conclude anything other than that Tourists who come to Coupeville and its environs to enjoy a day, weekend, or week or a month away from their busy lives elsewhere likely will be more noise-sensitive than any other group. Otherwise, you are on the side of risking serious or catastrophic financial crisis in that community which has virtually no interrelationship with NAS Whidbey or the Navy. The Navy's continuing use of the OLFC for faster, louder aircraft already has soured Navy pilots and crews from living in or around Coupeville. Will the Navy now gladly participate in the souring or collapse of Coupeville's economy?

It may well be the case, here and now, that an Alternative OLF location is the only responsible solution that can give serious consideration to the law, that is NEPA, and to the overwhelming opposition in Coupeville and its Environs to any of the nine Proposals embodied in Alternatives 1, 2, or 3..

Table 3.2-4 Maximum Sound Exposure Level (dB) and Maximum Sound Level (dB) for Representative Points of Interest in the Vicinity of the NAS Whidbey Island Complex (CY 21)

POI ID	Description of POI	Maximum SEL (dB)	L_{max} (dB)[1]	Number of Annual Events[1]
	Residences			
R01	Sullivan Road	121	114	26
R02	Salal Street and N. Northgate Drive	109	96	12
R03	Central Whidbey	101	93	34
R04	Pull and Be Damned Point	96	88	208
R05	Snee-Oosh Point	92	84	733
R06	Admirals Drive and Byrd Drive	118	114	267
R07	Race Lagoon	114	106	55
R08	Pratts Bluff	112	105	75
R09	Cox Rd and Island Ridge Way	92	82	72
R10	Skyline	100	90	261
R11	Sequim	73	60	74
R12	Port Angeles	75	65	208
	Schools			
S01	Oak Harbor High School	99	90	26
S02	Crescent Harbor Elementary School	102	94	178
S03	Coupeville Elementary School	98	90	367
S04	Anacortes High School	93	83	112
S05	Lopez Island School	76	68	110
S06	Friday Harbor Elementary School	53	39	26
S07	Sir James Douglas Elementary	62	52	147
	Parks			
P01	Joseph Whidbey State Park	93	82	34
P02	Deception Pass State Park	110	104	161
P03	Dugualla State Park	105	98	110
P04	Ebey's Landing - Rhododendron Park	112	106	267
P05	Ebey's Landing - Ebey's Prairie	88	77	367
P06	Fort Casey State Park	96	85	267
P07	Cama Beach State Park	83	73	5
P08	Port Townsend	85	n/a	24
P09	Moran State Park	62	51	61
P10	San Juan Islands National Monument	95	85	372
P11	San Juan Island Visitors Center	63	50	147

Note:

[1] The L_{max} metric provided, along with the number of events, is representative of what an individual may hear at this POI and how often; however, there is variability in the number of operations that occur daily because there are periods when there is minimal operational activity and other periods when there are more aircraft operations. In addition, there is some variability in how close the aircraft operation itself is to the POI, as weather, other aircraft traffic, pilot proficiency, etc. can affect the position of an aircraft within the modeled flight track.

Key:

dB = decibel

L_{max} = maximum A-weighted sound level

n/a = not available; the aircraft that generates the highest L_{max} at this POI is the P-8A

POI = Point of Interest

SEL = Sound Exposure Level

5.4.1 *Points of Interest*

Table 5-5 shows the DNL for each POI. Under the Average Year No Action Alternative 6 POI would experience DNL greater than or equal to 65 dB and 3 residential POI would experience DNL greater than or equal to 75 dB. Two of the latter category would be near Ault Field (R01 and R02) and 1 would be near the OLF (R06). No school POI would experience DNL greater than or equal to 65 dB.

All but 6 of the POI would experience less than 0.5 dB change in DNL, relative to the Average Year Baseline scenario and none would be newly impacted. S02 would experience a 1 dB decrease in DNL while P08, P11, R01 and R11 would experience a 1 dB increase in DNL.

See Appendix F for lists of five flight profiles whose SEL is greatest at each POI.

Under the High Tempo Year No Action Alternative (Appendix G) one additional POI, Crescent Harbor Elementary School, would be exposed to 65 dB DNL or greater. The other statistics cited above would not change except for the change statistics relative to the Average Year Baseline scenario. All but 8 of the POI would experiences less than 0.5 dB change in DNL relative to the High Tempo Year Baseline scenario. P08, P11, R05, R11, S03, and S06 would experience a 1 dB increase in DNL while R07 and R10 would experience a 1 dB decrease in DNL.

Table 5-5. Estimated Aircraft DNL at POI for the Average Year No Action Alternative

Point of Interest				DNL (dB)	
Type	ID	Description	Associated Airfield	No Action	Increase re Baseline
Park	P01	Joseph Whidbey State Park	Ault	57	-
	P02	Deception Pass State Park	Ault	74	-
	P03	Dugualla State Park	Ault	65	-
	P04	Baseball Field (Ebey's Landing National Historical Reserve)	OLF	75	-
	P05	Ebey's Prairie	OLF	52	-
	P06	Fort Casey State Park	OLF	62	-
	P07	Cama Beach State Park	OLF	<45	-
	P08	Port Townsend	OLF	<45	+1
	P09	Moran State Park	Ault	<45	-
	P10	San Juan Islands National Monument	Ault	54	-
	P11	San Juan Island Visitors Center	Ault	<45	+1
Residential	R01	Sullivan Rd	Ault	90	+1
	R02	Salal St. and N. Northgate Dr	Ault	77	-
	R03	Central Whidbey	Ault	57	-
	R04	Pull and Be Damned Point	Ault	61	-
	R05	Snee-Oosh Point	Ault	56	-
	R06	Admirals Dr and Byrd Dr	OLF	79	-
	R07	Race Lagoon	OLF	61	-
	R08	Pratts Bluff	OLF	63	-
	R09	Cox Rd and Island Ridge Way	OLF	51	-
	R10	Skyline	Ault	56	-
	R11	Sequim	Ault	<45	+1
	R12	Port Angeles	Ault	<45	-
School	S01	Oak Harbor High School	Ault	60	+1
	S02	Crescent Harbor Elementary School	Ault	64	-1
	S03	Coupeville Elementary School	OLF	59	-
	S04	Anacortes High School	Ault	48	-
	S05	Lopez Island School	Ault	<45	-
	S06	Friday Harbor Elementary School	Ault	<45	-
	S07	Sir James Douglas Elementary School	Ault	<45	-

airfield. The Navy believes the ABD is inappropriate for this document. First, it should be noted that ABD is an operational-level concept devised in the AICUZ program, and the intent of the AICUZ instruction is to help prevent incompatible encroachment upon the flying mission of a Navy airfield, which encourages the use of the most conservative assumptions regarding projected airfield operations in order to prevent future encroachment even if future operational assumptions may be somewhat speculative. Consequently, this underlying goal can result in overstated noise impacts. The intent of this EIS is not to directly support the AICUZ program, but to use best available science as required under NEPA to develop an accurate analysis of potential noise impacts from the Proposed Action. Thus, while related, the AICUZ standard is not necessarily an appropriate NEPA standard. Using ABD would greatly overstate the nature of the noise impacts at OLF Coupeville, thus providing decision makers and the public with an inaccurate analysis. Moreover, because of the interaction between Ault Field and OLF Coupeville, an accurate analysis requires a common measure. In several alternatives, the noise contours of Ault Field and OLF Coupeville merge, and using different units of measure at each airfield would result in inaccuracy to the noise analysis. In fact, it would provide two results that are not directly comparable. Finally, the alternatives, and particularly the sub-alternatives that provide for greater operations at OLF Coupeville, would make the ABD an inappropriate measure based on volume of operations. As the AICUZ instruction notes, yearly average noise levels, known as Average Annual Day, is the preferred unit of measure that the Navy believes accurately represents the noise impacts that may arise from the Proposed Action. The ABD metric is controversial due to the potential for inaccuracy noted above. Finally, the U.S. Air Force, which first adopted the ABD metric in 1977, has eliminated it from the Air Force AICUZ program. Similarly, the Navy has begun the review to determine whether it should follow suit and eliminate ABD from the AICUZ program.

Table 3.1-3 Annual Modeled Affected Environment Operations[1] at Ault Field and OLF Coupeville (Average)

Aircraft Type	*FCLP*	*Other Operations*[3]	*Total*
Affected Environment for Ault Field			
Growler	14,700	53,100	67,800
P-8	0	10,600	10,600
H-60	0	900	900
C-40	0	1,000	1,000
Transient[2]	0	1,300	1,300
Total Airfield Operations	**14,700**	**66,900**	**81,700**
Affected Environment for OLF Coupeville			
Growler	6,100	0	6,100
P-8	0	0	0
H-60	0	400	400
C-40	0	0	0
Transient	0	0	0
Total Airfield Operations	**6,100**	**400**	**6,500**
Total Affected Environment for Ault Field and OLF Coupeville			
Growler	20,800	53,100	73,900
P-8	0	10,600	10,600
H-60	0	1,300	1,300
C-40	0	1,000	1,000
Transient	0	1,300	1,300
Total Airfield Operations	**20,800**	**67,400**	**88,600**

4.4.2 *Potential Hearing Loss*

Table 4-6 shows estimates of the population within 1-dB bands of $L_{eq(24h)}$ and their associated NIPTS. For Average and 10th Percentile NIPTS categories, 39 and 763 people would have the potential for NIPTS greater than or equal to 5 dB, respectively. All of the Average NIPTS population would be associated with Ault Field (none with the OLF) whereas approximately 13% of the 10th Percentile NIPTS population would be associated with the OLF.

Under the High Tempo Year Scenario (Appendix G), for Average and 10th Percentile NIPTS categories, 41 and 820 people would have the potential for NIPTS greater than or equal to 5 dB, respectively, and 11% of the 10th Percentile NIPTS would be associated with the OLF.

The potential NIPTS values presented in Table 4-6 are only applicable in the extreme case of outdoors exposure at one's residence to all aircraft events occurring over a period of 40 years. As it is highly unlikely any individuals would meet all of those criteria, the actual potential NIPTS for most individuals would be much less than the values presented here.

Table 4-6. Estimated Potential Hearing Loss for the Average Year Baseline Scenario

Band of $L_{eq(24)}$ (dB)	Average NIPTS (dB) (1)	10th Percentile NIPTS (dB) (1)	Estimated Population			
			Ault Field (on-Station)	Ault Field (off-Station)	OLF Coupeville (off-Station)	TOTAL
74-75	0.5	3.5	-	-	-	-
75-76	1.0	4.0	-	-	58	58
76-77	1.0	4.5	-	173	52	225
77-78	1.5	5.0	-	239	48	287
78-79	2.0	5.5	-	138	34	172
79-80	2.5	6.0	-	76	15	91
80-81	3.0	7.0	-	65	4	69
81-82	3.5	8.0	-	50	-	50
82-83	4.0	9.0	-	32	-	32
83-84	4.5	10.0	-	23	-	23
84-85	5.5	11.0	-	16	-	16
85-86	6.0	12.0	-	12	-	12
86-87	7.0	13.5	-	6	-	6
87-88	7.5	15.0	-	4	-	4
88-89	8.5	16.5	-	1	-	1
89-90	9.5	18.0	-	-	-	-
90-91	10.5	19.5	-	-	-	-
91-92	11.5	21.0	-	-	-	-

(1) rounded to nearest 0.5 dB

Note: Average NIPTS values greater than 10 dB, and 10th Percentile NIPTS values greater than 12 dB are estimated based on extrapolating available data from EPA guidance (EPA 1982).


Coupeville
Ebey's Landing
National
Historical Reserve
OLF COUPEVILLE
20


P02
E Troxel Rd
W Troxel Rd
R02
Jones
AULT
FIELD
R01
20
Dike Rd
Taylor Rd
Heller Rd
Oak Harbor Rd
NW Crosby Ave
S01
S02
Oak Harbor
SEAPLANE
BASE
R03

Figure 3.2-4 No Action Environment for Ault Field, NAS Whidbey Island Complex

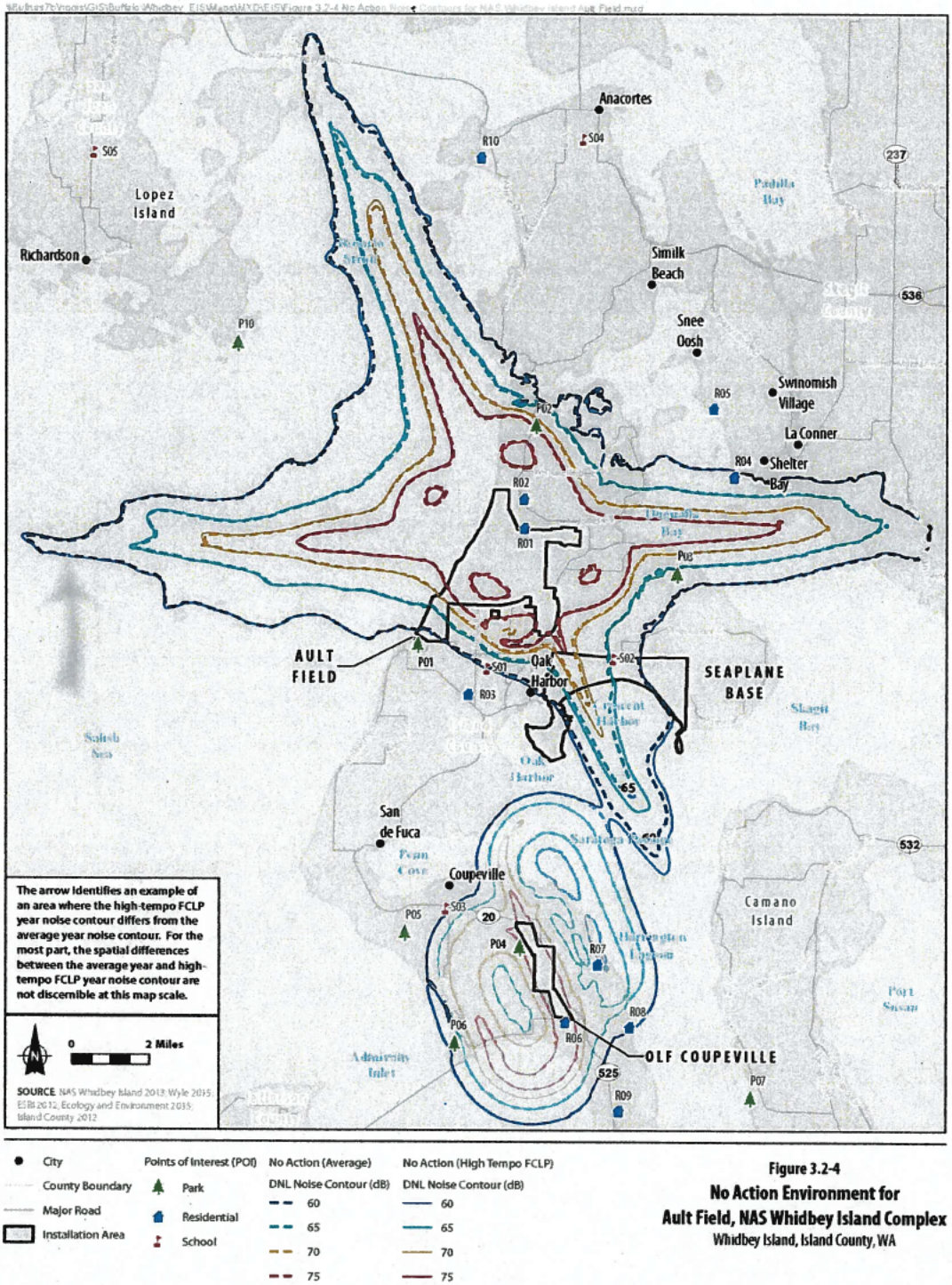


Figure 3.2-4
No Action Environment for Ault Field, NAS Whidbey Island Complex
Whidbey Island, Island County, WA

2

Figure 3.2-5 No Action Environment for OLF Coupeville, NAS Whidbey Island Complex

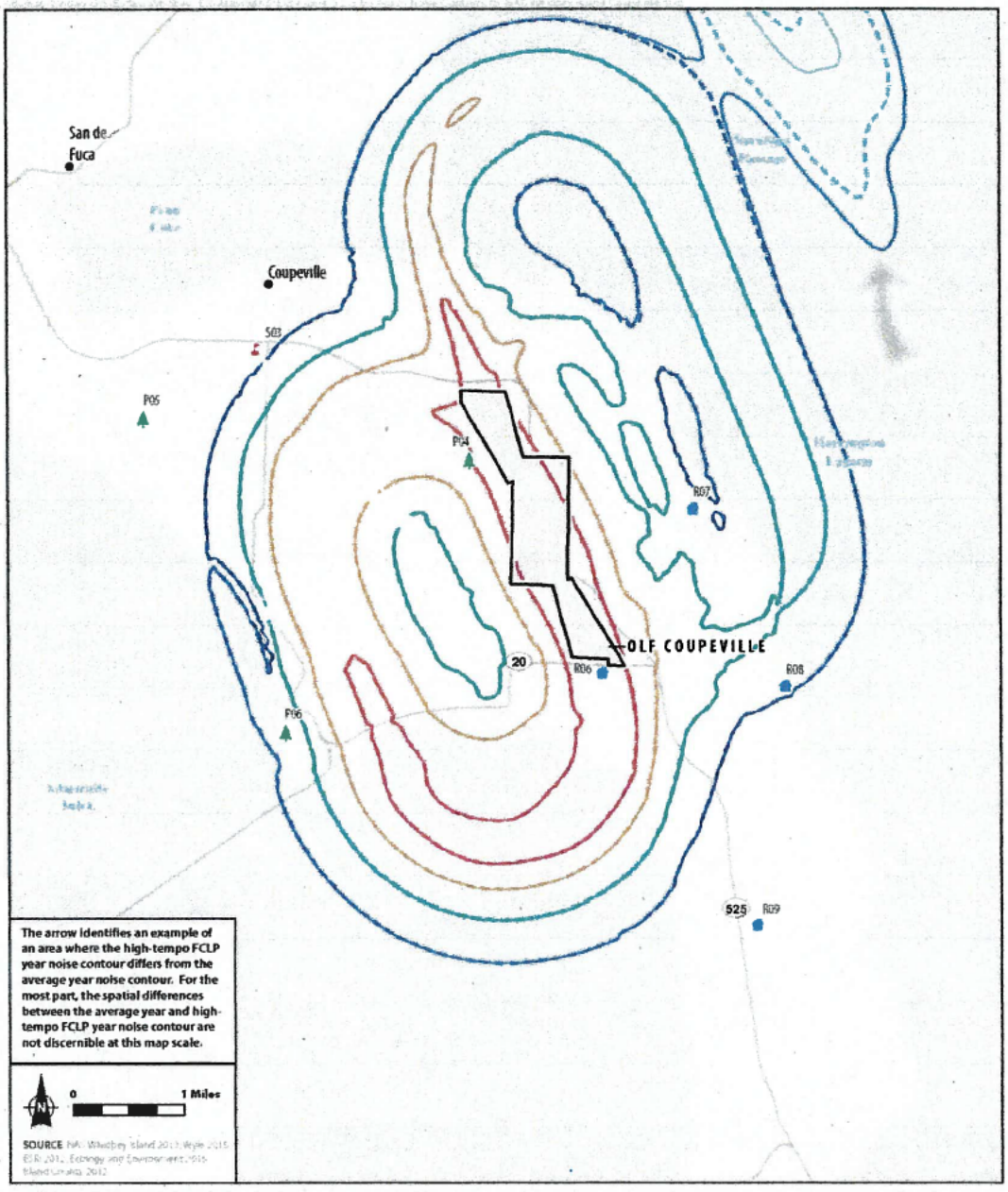


Figure 3.2-5
No Action Environment for
OLF Coupeville, NAS Whidbey Island Complex
Whidbey Island, Island County, WA

Figure 3.1-3 Aircraft Arrival and Departure Flight Tracks at NAS Whidbey Island Complex

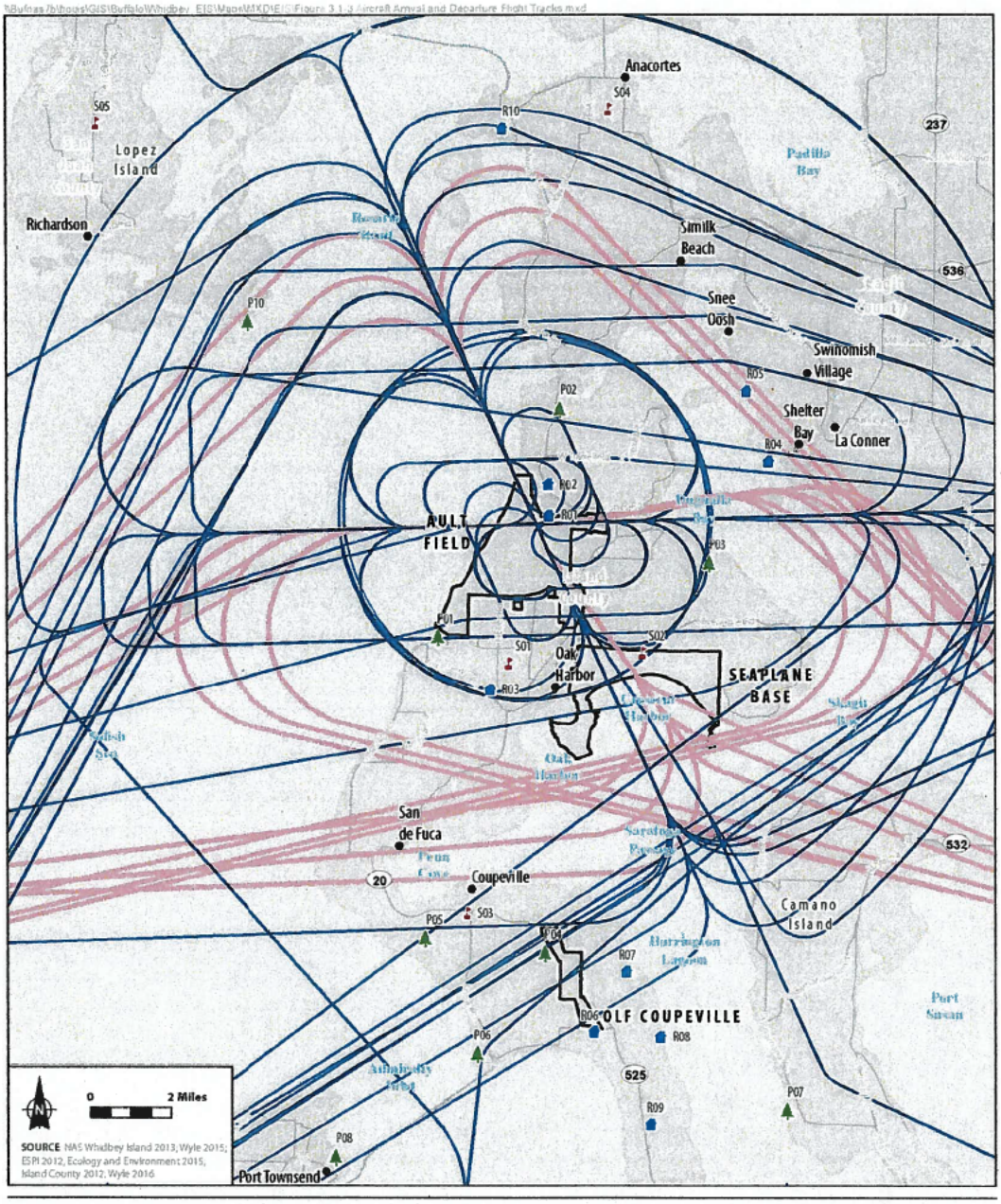


Figure 3.1-3
Aircraft Arrival and Departure Flight Tracks at NAS Whidbey Island Complex
Whidbey Island, Island County, WA

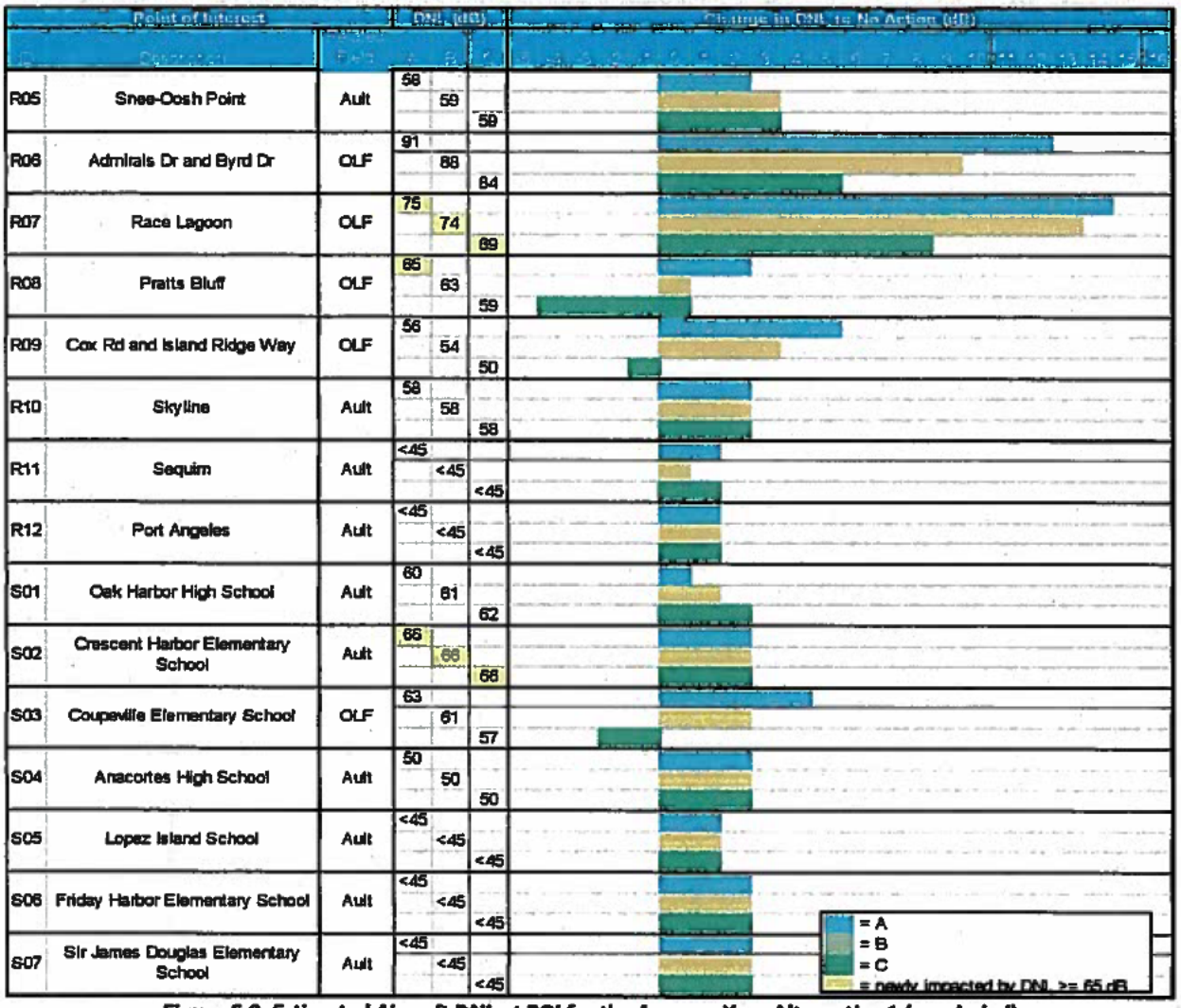


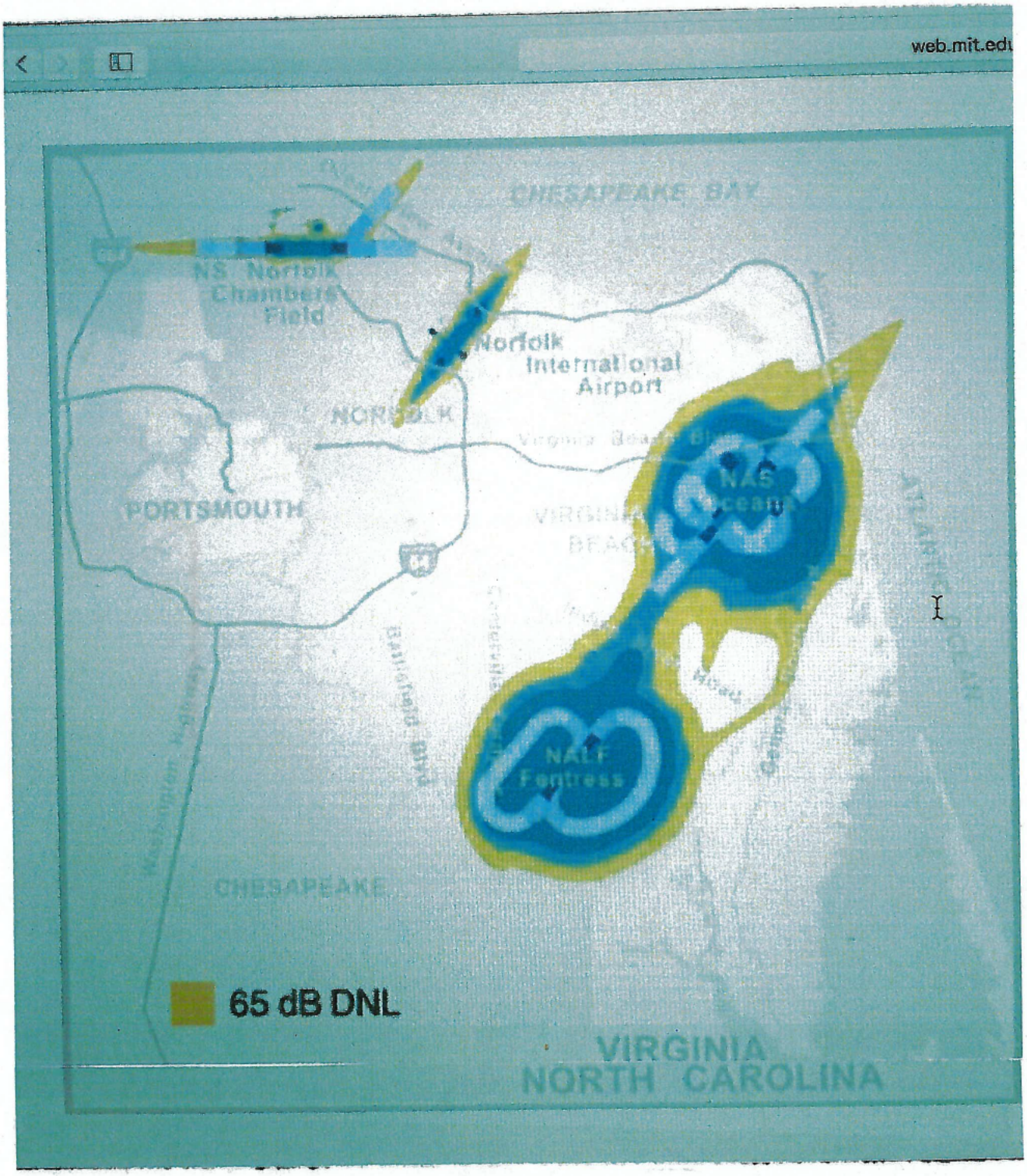
Figure 6-9. Estimated Aircraft DNL at POI for the Average Year Alternative 1 (concluded)

Under the High Tempo Year Alternative 1A/B/C (Appendix G), 8-10 POI would experience DNL greater than or equal to 65 dB and 3-4 residential POI would experience DNL greater than or equal to 75 dB. Two of the latter category would be near Ault Field (R01 and R02) and two would be near the OLF (R06 and R07). One of the 7 schools, POI S02, would experience DNL of at least 65 dB, i.e., 66 dB for Alternatives 1A, 1B, and 1C.

Under the High Tempo Year Alternatives 1A/B/C, increase in DNL would be greatest for 1A and smallest for 1C. Increases in DNL would range from 1 to 15 dB, relative to the High Tempo No Action Alternative. POI R07 and R06 would experience increases in DNL of up to 15 and 12 dB, respectively. POI R07 would be newly impacted for Alternatives 1A, 1B, and 1C with DNL of 70-76 dB. POI P06 and R08 would also be newly impacted, but only for Alternative 1A, with DNLs of 65 dB.

6.4.2 *Potential Hearing Loss*

Table 6-8a through 6-8c show estimates of the population within 1-dB bands of $L_{eq(24h)}$ and their associated NIPTS for the Average Year Alternative 1. For Average and 10th Percentile NIPTS categories, up to 183 and 1,694 people would have the potential for NIPTS greater than or equal to 5 dB, respectively. Up to 70% of the Average NIPTS population would be associated with the OLF, and 48% of the 10th Percentile NIPTS population would be associated with the OLF, both for Alternative 1A.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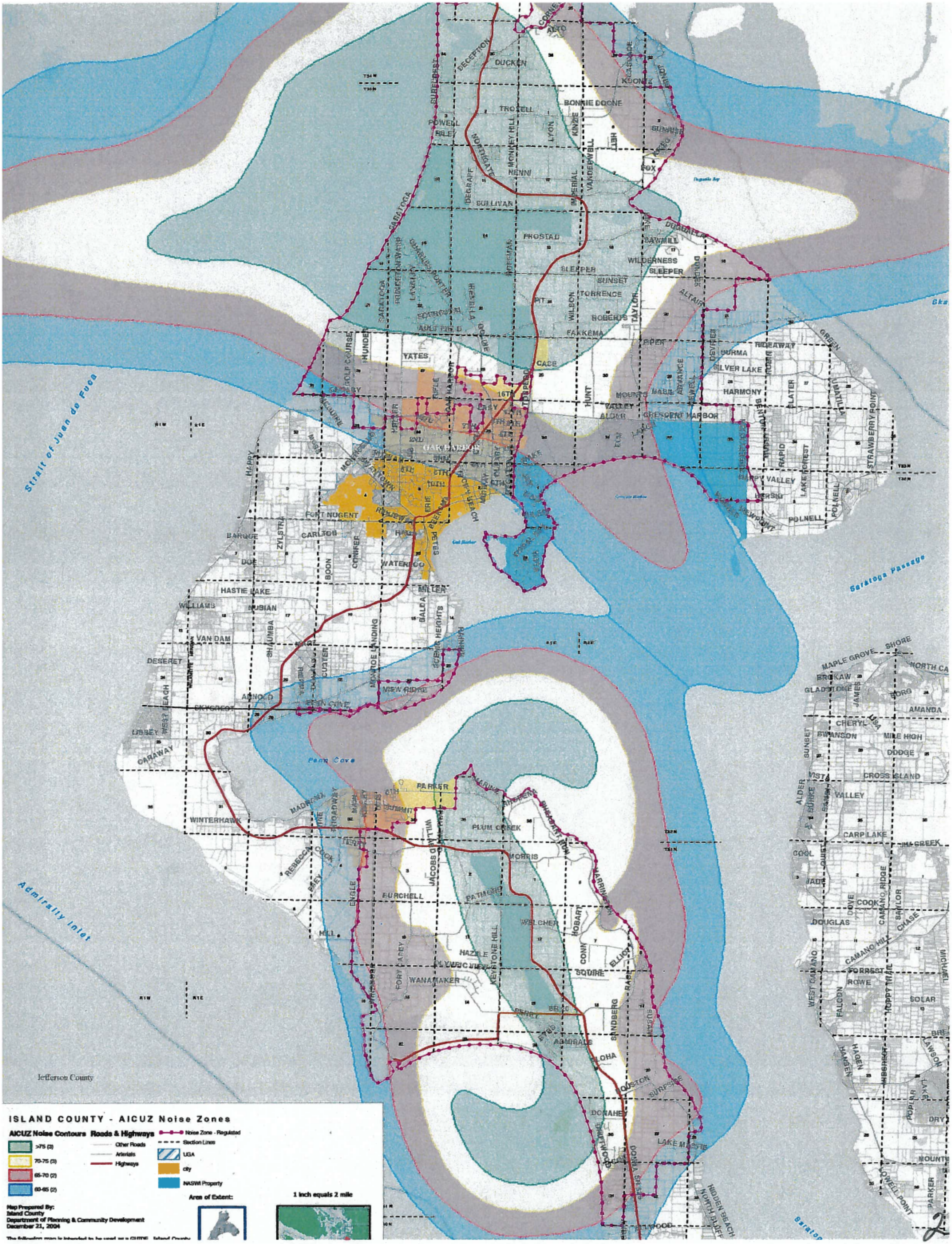
N.S. Norfolk
Chambers
Field
Norfolk
International
Airport
NORFOLK
PORTSMOUTH
NAS
Oceana
VIRGINIA
BEACH
NALF
Fortress
CHESAPEAKE
65 dB DNL
VIRGINIA
NORTH CAROLINA


ISLAND COUNTY - AICUZ Noise Zones
AICUZ Noise Contours
>75 (3)
70-75 (3)
65-70 (2)
60-65 (2)
Roads & Highways
Other Roads
Arterials
Highways
Noise Zone - Regulated
Section Lines
UGA
city
NASWI Property
Area of Extent:
1 inch equals 2 mile
Map Prepared By:
Island County
Department of Planning & Community Development
December 21, 2004
Strait of Juan de Fuca
Admiralty Inlet
Saratoga Passage
Jefferson County
Oak Harbor
Penn Cove
Oak Harbor
Crescent Harbor
Dugualla Bay
Plum Creek
Fort Nugent
Hastie Lake
Swantown

2


Coupeville
Ebey's Landing
National
Historical Reserve
OLF COUPEVILLE
14
32
20
R07
R06

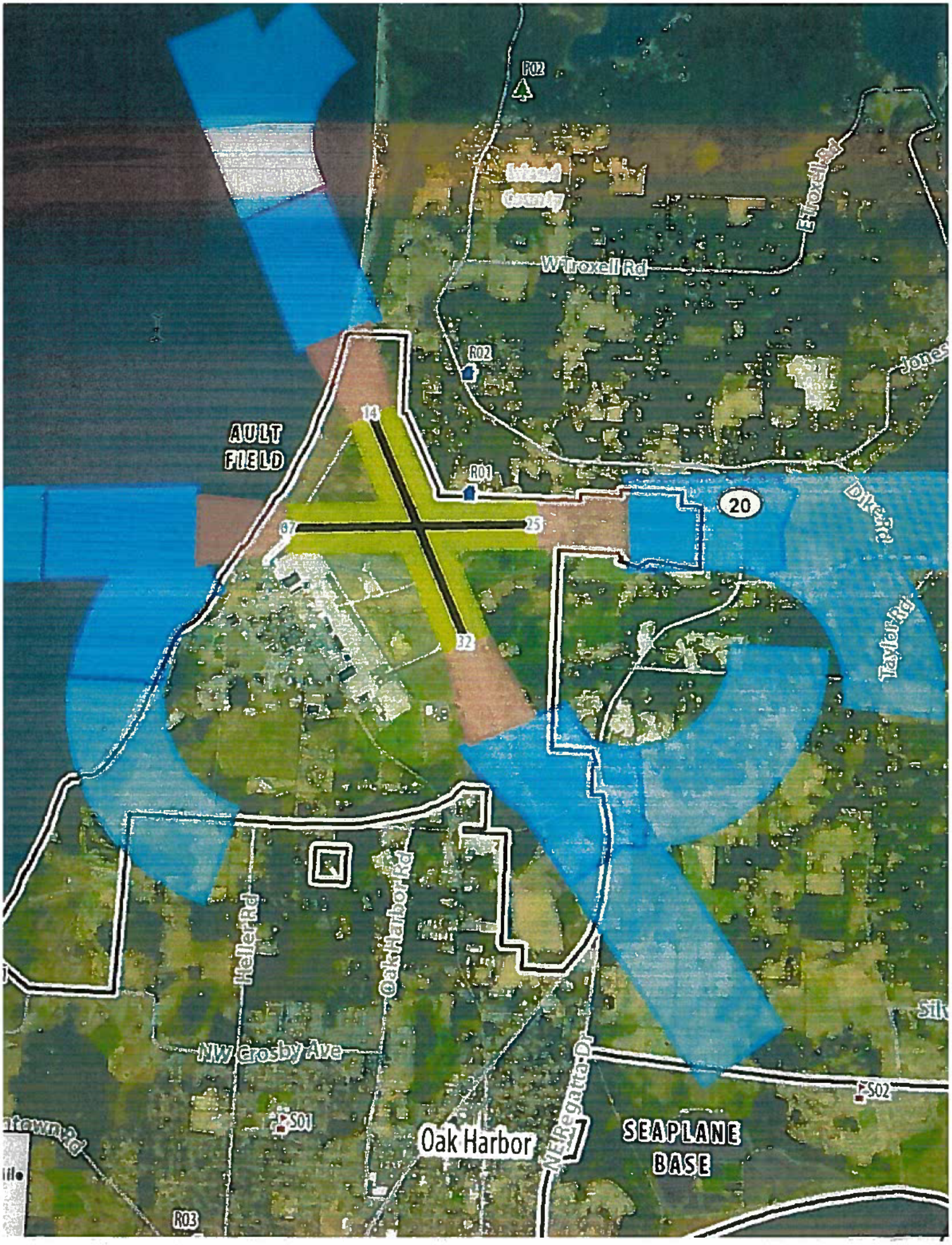

RO2
W Troxell Rd
RO2
AULT
FIELD
14
RO1
20
07
25
32
Dike Rd
Taylor Rd
Heller Rd
Oak Harbor Rd
NW Crosby Ave
SO1
Oak Harbor
SEAPLANE
BASE
SO2
RO3

Figure 3.2-4 No Action Environment for Ault Field, NAS Whidbey Island Complex

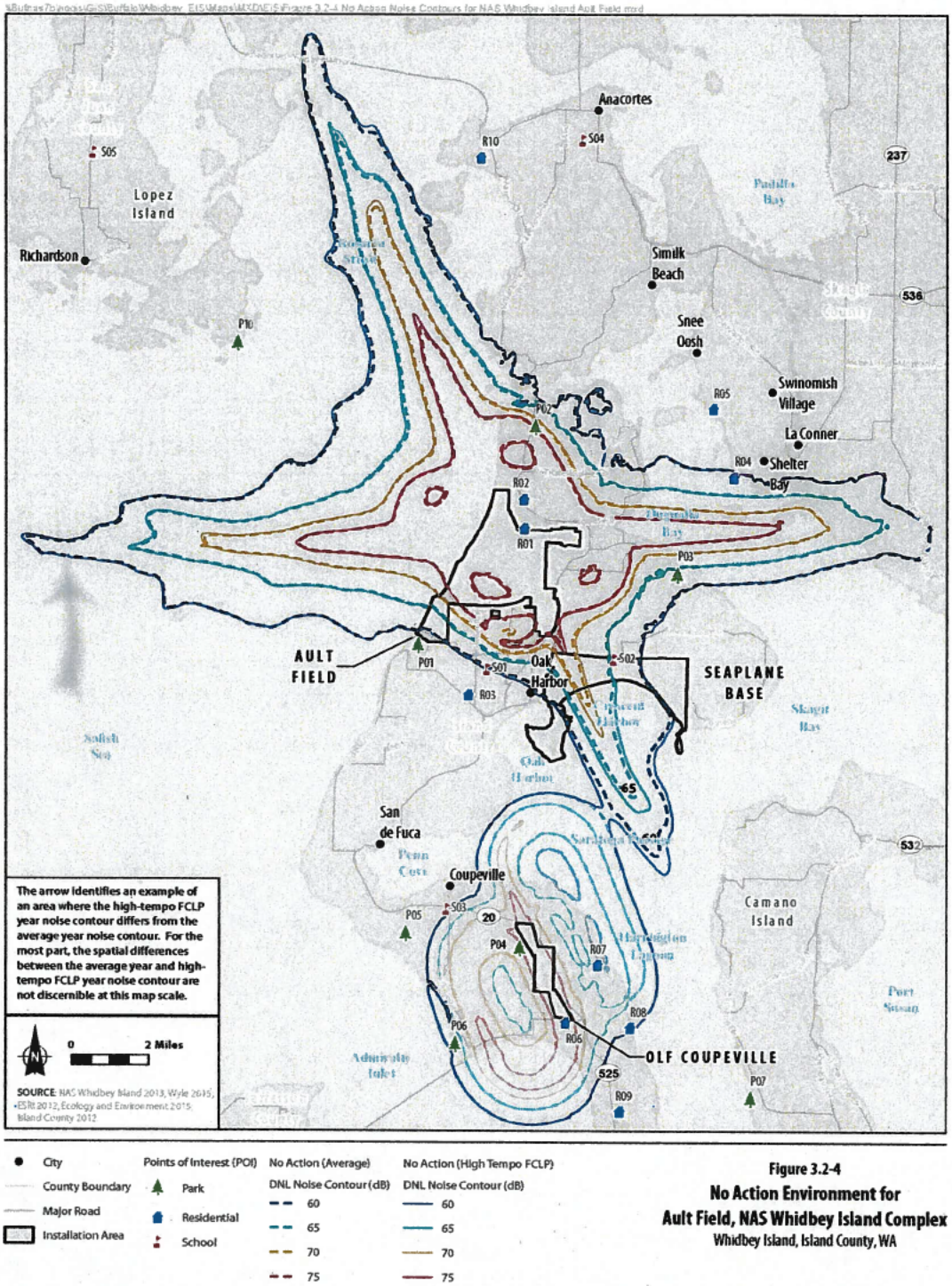


Figure 3.2-4
No Action Environment for Ault Field, NAS Whidbey Island Complex
Whidbey Island, Island County, WA

2

Figure 3.2-5 No Action Environment for OLF Coupeville, NAS Whidbey Island Complex

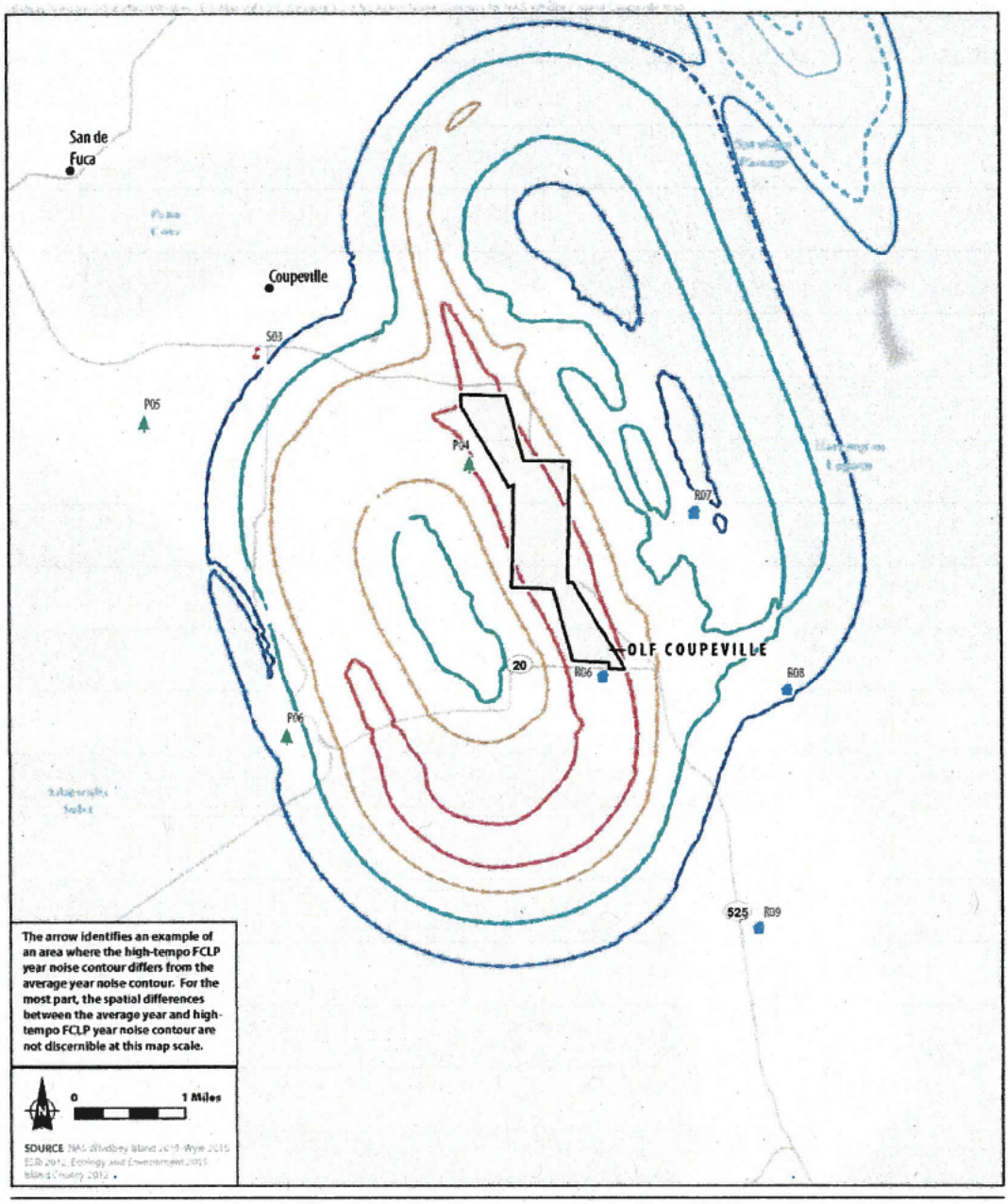


Figure 3.2-5
No Action Environment for
OLF Coupeville, NAS Whidbey Island Complex
Whidbey Island, Island County, WA

2

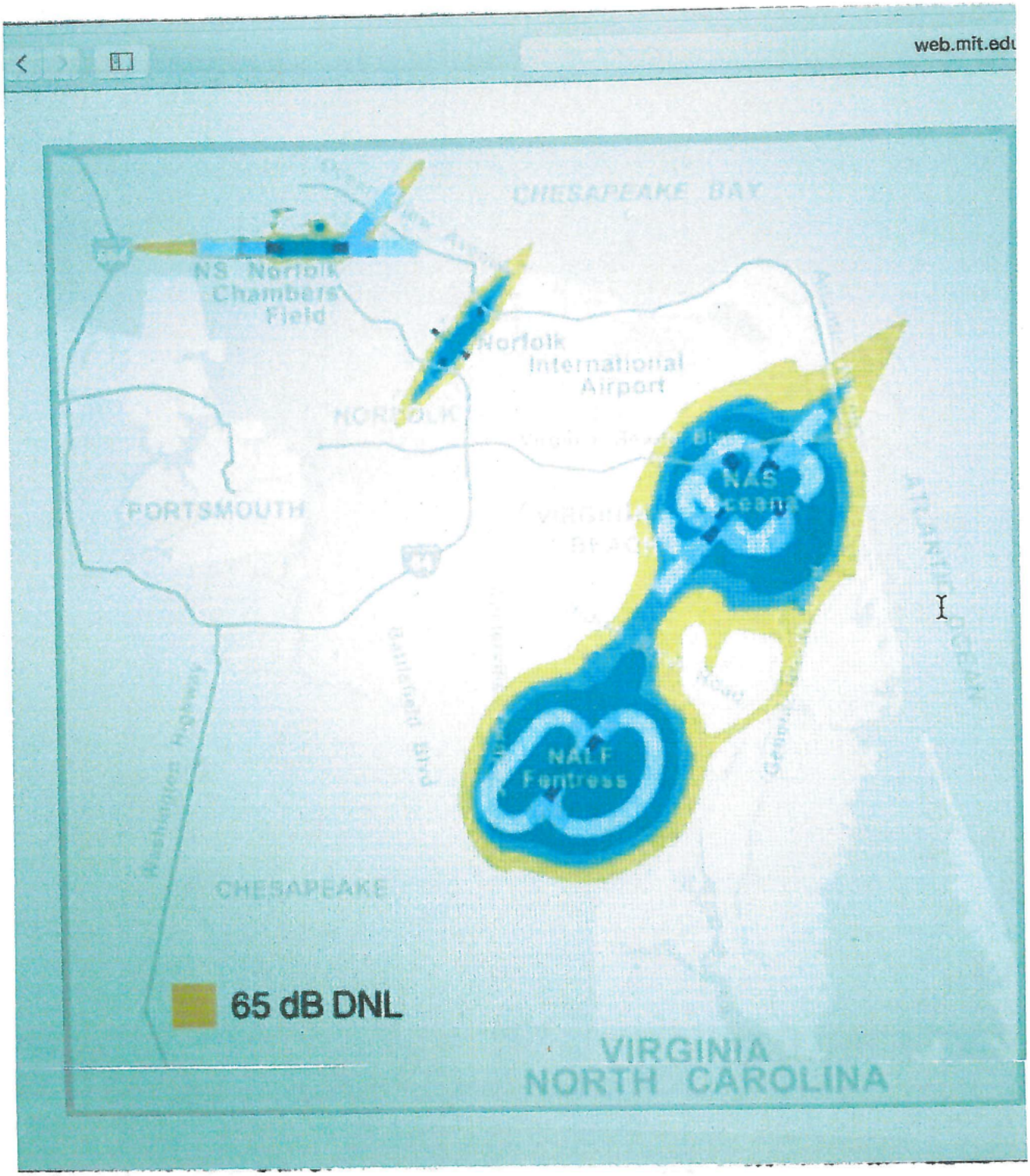

web.mit.edu
CHESAPEAKE BAY
NS Norfolk
Chambers
Field
Norfolk
International
Airport
NORFOLK
PORTSMOUTH
NAS
Oceana
NALF
Fortress
CHESAPEAKE
65 dB DNL
VIRGINIA
NORTH CAROLINA

Figure 3.1-3 Aircraft Arrival and Departure Flight Tracks at NAS Whidbey Island Complex

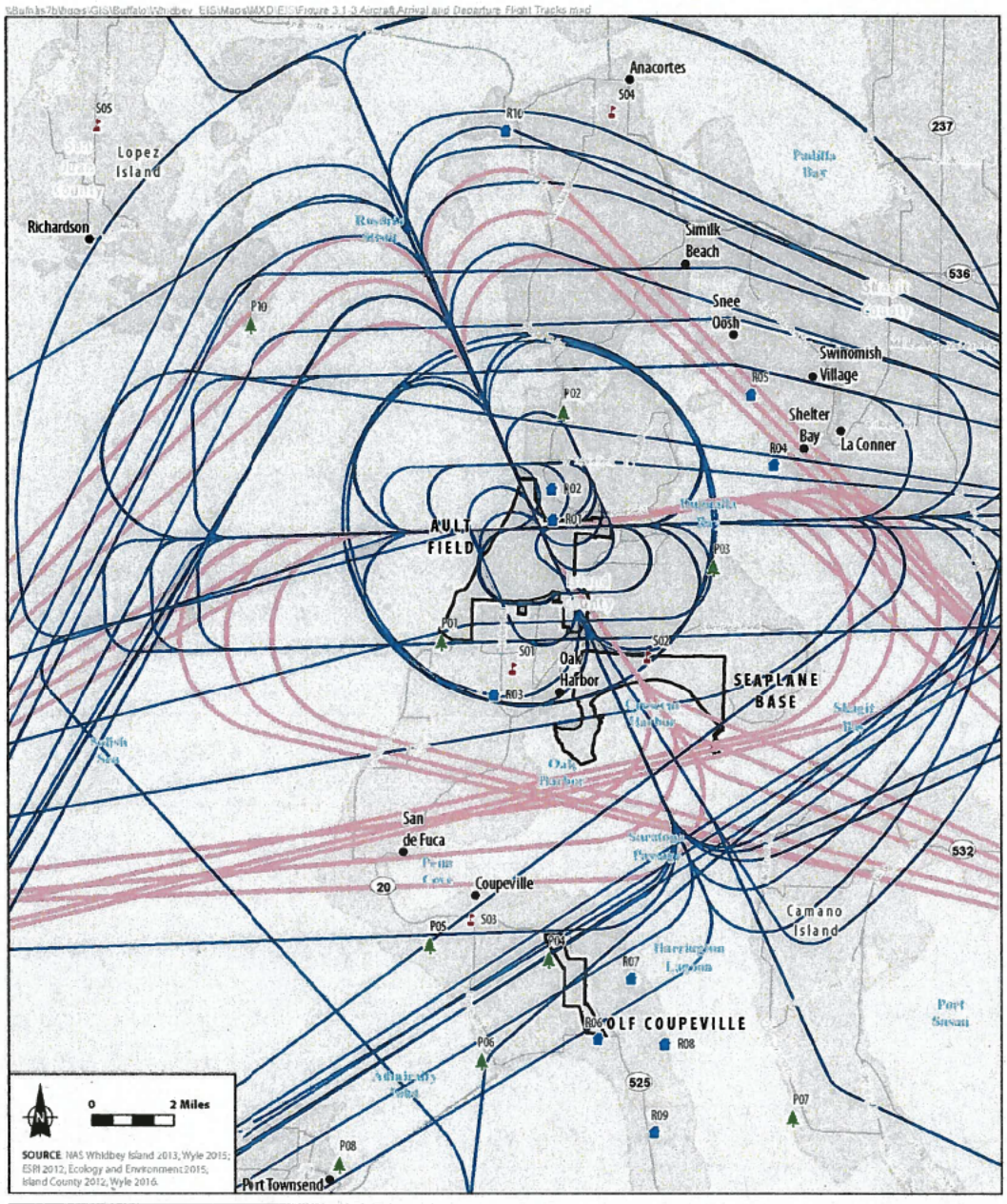


Figure 3.1-3
Aircraft Arrival and Departure Flight Tracks at NAS Whidbey Island Complex
Whidbey Island, Island County, WA

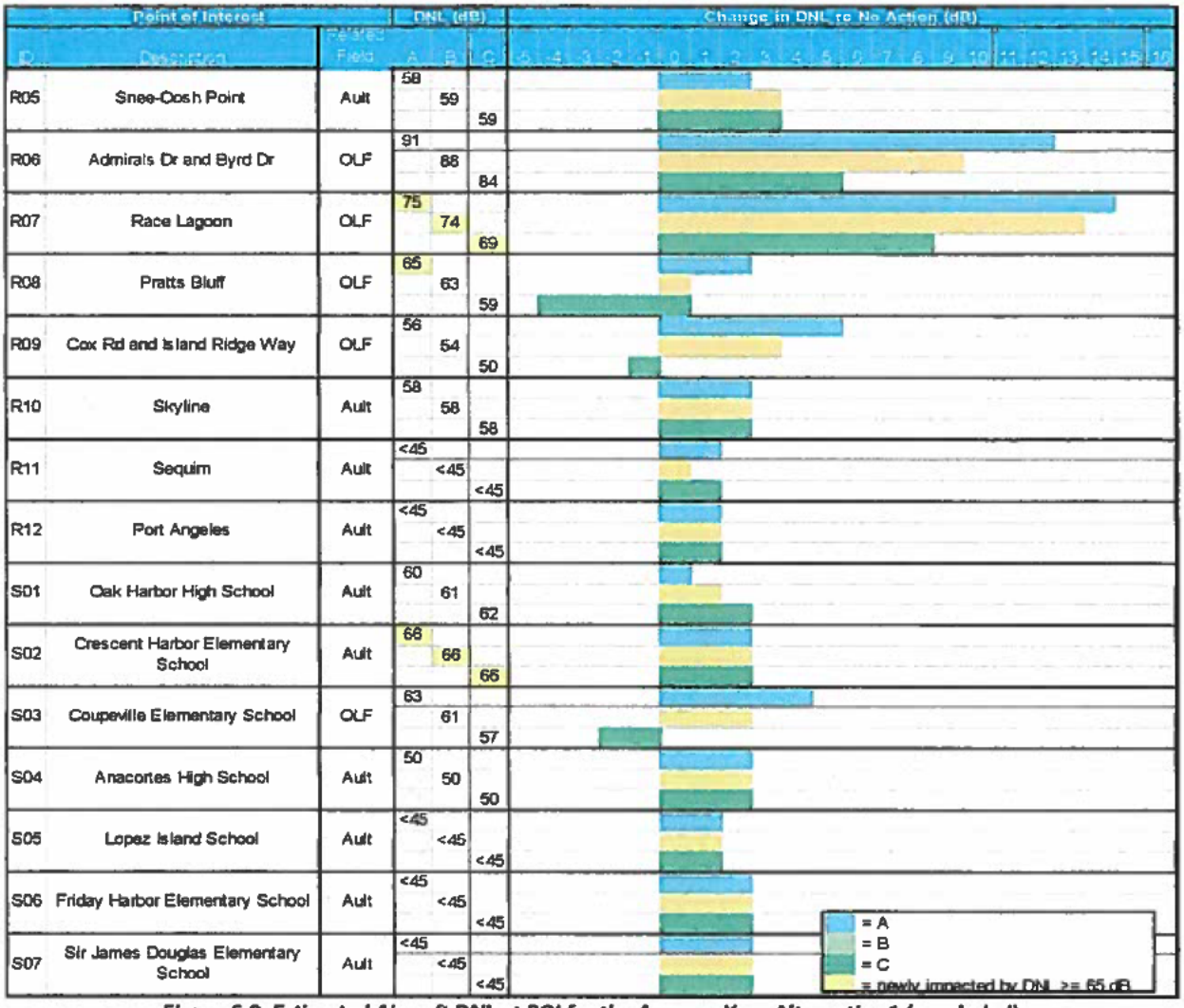


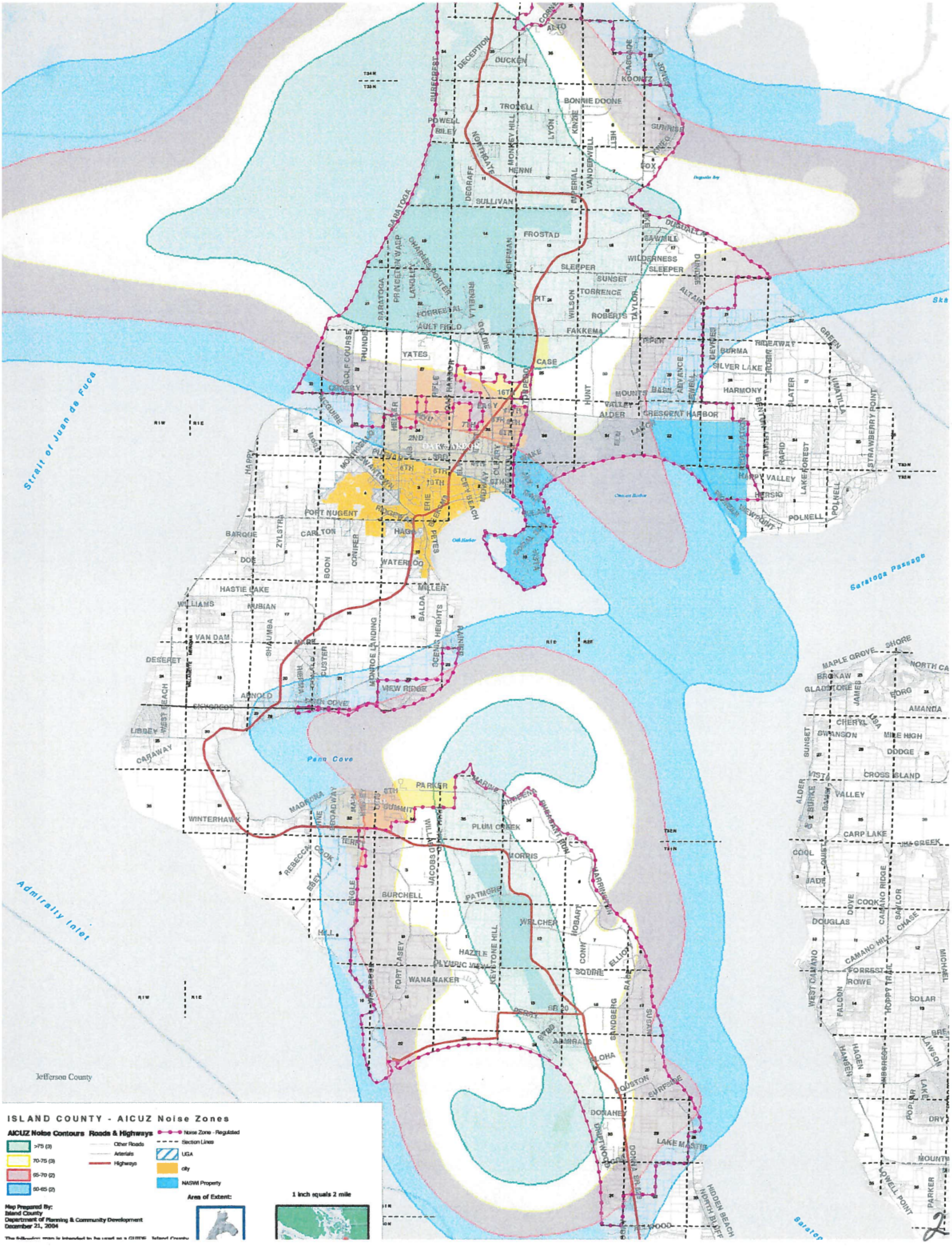
Figure 6-9. Estimated Aircraft DNL at POI for the Average Year Alternative 1 (concluded)

Under the High Tempo Year Alternative 1A/B/C (Appendix G), 8-10 POI would experience DNL greater than or equal to 65 dB and 3-4 residential POI would experience DNL greater than or equal to 75 dB. Two of the latter category would be near Ault Field (R01 and R02) and two would be near the OLF (R06 and R07). One of the 7 schools, POI S02, would experience DNL of at least 65 dB, i.e., 66 dB for Alternatives 1A, 1B, and 1C.

Under the High Tempo Year Alternatives 1A/B/C, increase in DNL would be greatest for 1A and smallest for 1C. Increases in DNL would range from 1 to 15 dB, relative to the High Tempo No Action Alternative. POI R07 and R06 would experience increases in DNL of up to 15 and 12 dB, respectively. POI R07 would be newly impacted for Alternatives 1A, 1B, and 1C with DNL of 70-76 dB. POI P06 and R08 would also be newly impacted, but only for Alternative 1A, with DNLs of 65 dB.

6.4.2 Potential Hearing Loss

Table 6-8a through 6-8c show estimates of the population within 1-dB bands of $L_{eq(24h)}$ and their associated NIPTS for the Average Year Alternative 1. For Average and 10th Percentile NIPTS categories, up to 183 and 1,694 people would have the potential for NIPTS greater than or equal to 5 dB, respectively. Up to 70% of the Average NIPTS population would be associated with the OLF, and 48% of the 10th Percentile NIPTS population would be associated with the OLF, both for Alternative 1A.


ISLAND COUNTY - AICUZ Noise Zones
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Other Roads
Arterials
Highways
Noise Zone - Regulated
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Admiralty Inlet
Saratoga Passage
Penn Cove
Oak Harbor
Crescent Harbor
Jefferson County
T34N
T33N
T32N
T31N
R1W
R1E
R2E
SARATOGA
DECEPTION
DUCKEN
KOONTZ
TROXELL
BONNIE DOONE
SULLIVAN
FROSTAD
SLEEPER
WILDERNESS
SUNSET
TORRENCE
ROBERTS
FAKKEMA
AULT FIELD
YATES
CASE
CROSBY
HARMONY
ALDER
CRESCENT HARBOR
HAPPY VALLEY
POLNELL
FORT NUGENT
CARLTON
BARQUE
WATERLOO
HASTIE LAKE
WILLIAMS
VAN DAM
DESERET
ARNOLD
VIEW RIDGE
LIBBEY
CARAWAY
PARKER
WINTERHAWK
PLUM CREEK
MORRIS
BURCHELL
WELCHER
HAZELE
WANAMAKER
ADMIRALS
LAKE MARTIN
MAPLE GROVE
SHORE
CAMANO HILL
CROSS ISLAND
CARP LAKE
DOUGLAS
WEST CAMANO
2

SECTION 3.

COUPEVILLE & ENVIRONS: A QUALITY OF LIFE AT RISK OF DEVASTATION BY THE UNITED STATES NAVY?

The purpose of this Section is twofold: First, to acknowledge that the Town of Coupeville and its Environs, the vicinity surrounding OLFC, is idyllic and unique and vastly different from Oak Harbor. It is not my contention that it is better or worse than Oak Harbor, but that it is different. Coupeville's economy is built upon a structure or basis totally different from the economy of Oak Harbor. Coupeville's economy is not dependent upon jobs or employment at NAS Whidbey, in clear contrast to Oak Harbor. However, it is my contention that Navy action, proposed in the DEIS, likely would devastate the level of Tourism that is essential to the economic health of Coupeville, and that any of the nine Proposals set forth in either of Scenarios A, B, or C of ant of Alternatives 1, 2, or 3 the DEIS, would have a **Very Significant Impact** on Coupeville and its Environs.

Second, a further purpose in this Section of My Comments is to observe the differences that have prevailed since the 1950's and that combine to make Coupeville a uniquely special place with characteristics that must be protected and cherished, not devastated or destroyed by Navy intransigence with finding a permanent solution to the conflict with OLFC (See Section 6. Alternatives to OLFC. Lastly, this Comment will observe the differences that have prevailed and existed in Coupeville since the 1850's, and should be permitted to continue to exist and not be devastated or destroyed.

In showing that Coupeville has been around a long, long time, it is often said, accurately that Coupeville is the second oldest city in Washington. The following is an excerpt from in an article entitled "Front Street, Coupevile, Washington (www.chwahistoric.coupeville.com) that reads in part as follows:

"In 1848 Whidbey Island's first white settler, Thomas Glasgow, filed a land claim on what is now Ebey's Prairie. . . . Following the Point Elliott Treaty in 1855, many of the Lower Skagit people were placed on the Tulalip reservation. A few continued to live in Coupeville."

"The same Whidbey Island locations that appealed to the Skagits [tribes] also appealed to early white sea captains and farmers who explored and settled central Whidbey Island in the early 1850s. Ebey's Landing, on the Strait of Juan de Fuca, was an easy place to reach by water and the nearby prairie and protected harbor of Penn Cove made excellent sites for establishing homes and farms."

"On September 27, 1850, Congress passed the Oregon Donation Land Claim Act, granting free land (320 acres to single men and 640 acres to married couples) to anyone who had settled on the land before December 1 of that year. Colonel Isaac Neff Ebey (1818-1857) was the first man in Central Whidbey Island to file a claim (640 acres) on October 15, 1850. During the years of the Donation Land Claim Act, updated in 1853 and again in 1854, 29 settlers registered claims on the Prairie and Penn Cove."

"A small settlement called Coveland formed at the head of Penn's Cove and served as the first Island County seat (1853-1881). Captain Benjamin Barstow (d. 1854) opened the first trading post at this location in 1853. A group of land developers platted Coveland in 1888 and changed the name to San de Fuca, chosen because of its proximity to the Straits of Juan de Fuca. **From 1881 to the present time, Coupeville has been the Island County seat"** [Emphasis added}.

Thus, History shows that Coupeville was established as a result of the migration of settlers to the area of Central Whidbey Island, among other places, as a direct result of the 1850 federal Oregon Donation Land Claim Act. While many the characteristics that once defined many of those other places created pursuant to that federal program to encourage migration, and that were cherished by residents of those other areas, even including Oak Harbor, have changed over time, but that is not the case with Coupeville. In terms of its ambiance, its citizenry, its business establishments, indeed its Comprehensive Plan, Coupeville cherishes its past and believes that its past is its present and its future, in terms of its economy. Coupeville seeks visitors and tourists on a year-round basis. Perhaps its Chamber of Commerce could tell you, if you ask, what is the rate of Tourists who arrive in Coupeville as return-Tourists. My guess is that rate might surprise the Navy. My point simply is to say that Tourism and the ambiance of Coupeville, along with its preference for locally-owned and operated tourist-service businesses like B&B's, restaurants, retail shops, souvenir shops, art galleries and artists, combine to make Coupeville, in todays world and even on Whidbey Island, truly special and unique to thousands of people who visit as tourists or who choose the lifestyle that comes with living and working there. I believe the economic vitality of Coupeville cannot and will not be sustained if Growler noise prevails and is increased, as proposed in the DEIS, and that would be a large step backward, not forward, and ensnaring Coupeville is the vice of noise with virtually no consideration given in the DEIS to the requirements mandated by NEPA for the preservation of cultures and lifestyles fostered by communities like Coupeville.

Nearly 90 years after Coupeville was established, and 61 years after Coupeville became the County Seat of Island County, NAS Whidbey was commissioned on September 21, 1942, near Oak Harbor. Not Coupeville.

It is useful, for these purposes, to gain a solidly-based understanding of Coupeville and its Environs. In that regard, a feature article was published on page M4 of the Sunday, November 4, 2007, Sacramento Bee, entitled "It just doesn't get much more pleasant than in Coupeville." I have used a 9-year old article to reflect that the views of Coupeville in yesteryears exist today. The article is an attempt by the author to provide the reader with a taste or described feeling for what it is about Coupeville that is unique and desirable, both as a place to live but also as a place to visit for a day, a week, a month, or whatever. I think the author succeeded and I have quoted some of that flavor and feeling:

"Coupeville, Wash. — "So here's what I've decided about this central Whidbey Island town and the forests, beaches and prairies that New England sea captain Thomas Coupe described to his wife as an 1850s "Garden of Eden.""
"Located mid-island between Langley and Oak Harbor, Coupeville still feels more like the pioneer town it was in the 19th century when Coupe laid claim to land on the shores of Penn Cove and turned Coupeville into a major Northwest port for the farming and maritime trades."
Quoting the owner of Elkhorn Antiques and a Coupeville resident for 35 years, the article says
""It's the last place on the island that moves at a slow pace." So get an early start"
"If you're coming from Seattle, figure on about two hours of driving and ferry-riding between you and the smell of salt air:"
"**8:30 a.m.**: Take the Clinton-Mukilteo Washington State Ferry for a 20-minute crossing across Possession Sound to Whidbey Island."
"Follow the . . highway toward Coupeville (28) miles past the roadside stands selling fresh dahlias and basil. Notice how the forests give way to open land. These are the Whidbey Island prairies, large and fertile farm areas formed on the sites of ancient lakebeds."
"Chances are it will be dry in Coupeville even if it's raining the Seattle or Langley. Whidbey Island is about 50 miles long. The northern half lies within the Olympic rain shadow, and rain averages just 18 inches annually compared with 30 inches in the southern half."

"**9:30 a.m.**: Breakfast at the Coupeville Coffeehouse in the yellow building with the red trim at 12 N.W. Front St., overlooking Penn Cove harbor. . . ."
"A wild blue heron nicknamed Henry makes an appearance most mornings and afternoons on a sandbar near the red warehouse at the end of the wharf. Find a seat on the deck or inside . . .under a sign that says "Loitering is Encouraged.""
"**10:30 a.m.**: Walk the waterfront. Coupeville is part of a 25-square-mile area called Ebey's Landing National Historical Reserve, a 17,400-acre national part area that includes federal land, two state parks, private farmland, and a collection of historical buildings and Victorian-style homes in and around the old waterfront."
"Stop by the Island County Historical Museum . . for a brochure for a self-guided walk around town and a 43 ½-mile driving and bicycling tour of the reserve."
"Start at the Coupeville Wharf and Warehouse at the foot of Northwest Alexander. Steam-boat service connected Coupeville with Seattle and Everett until a bridge built in 1937 at Deception Pass linked the north end of Whidbey to Fidalgo Island and Anacortes."
On display are the preserved bones of Rosie, a 33-foot gray whale that washed ashore in 1998."
"The walking tour includes 64 landmarks . . . so pick and choose and leave time to browse. . ."
"**Noon.**: Tea time. The houses of former sea captains and merchants are scattered throughout the town. Anna's Tea Room, 606 Main St., feels more like and eccentric East Coast auntie than a sophisticated English tearoom and that fits Coupeville's small-town image just fine."

"Order a pot ($3 for a small, $5 for a large) and pick your own cup and saucer from a cabinet filled with a collection of mis-matched china. Settle into the sofa by the window or a corner table and plan you afternoon over lunch or warm scones. . ."
"**1 p.m.**: Explore the Reserve. Named for Isaac Neff Ebey, on of the island's early permanent settlers, Ebey's Landing National Historic Reserve . . . includes eight miles of beach wilt a bluff trail looking out over the Strait of Juan de Fuca; paths through the prairies; a historic lighthouse at Fort Casey, a former military base, now a state park; forest land and lots of places for bird-watching and observing wildlife."
"Start at the beach. . . . There's a choice of two hikes: a 3 ½-mile loop trail along a bluff that skirts the strait. The other is a shorter walk inland through the prairie to a pioneer graveyard called the Sunnyside Cemetery."
"Kids will enjoy a visit to the Admiralty Head Lighthouse at nearby Fort Casey. Built with walls 18 inches thick to withstand earthquakes, it's open to the public for free. . ."
"**3 p.m.**: . . . Lavender Wind Farm three miles from the Coupeville Waterfront. Names for the winds that blow off the strait in winter, the farm includes 2 ½ acres of organically grown lavender." Come pick your own, buy a plant, or walk the outdoor labyrinth. . . Bunches of =dried lavender hang from the ceiling of a small shop stocked with vanilla-lavender ice cream bars, jellies, teas, pillows and sachets."
"**5 p.m.**; Sample the seafood. Connoisseurs consider Penn Cove mussels to be some of the world's finest. In Coupeville, they're farm-raised by Penn Cove Shellfish LLC. All the restaurants serve them, along with local crab, oysters, and clams. . ."
"If you're over 21 and up for some fun, try Toby's Tavern, 8 N.W. Front, a local hangout in an 1890's former beer parlor. . . ."

A statement I noticed in tourismmatters.com, regarding Whidbey and Camano Islands' Tourism, is that "Tourism is a major industry for Whidbey and Camano Islands, supporting approximately 1,600 existing companies and stimulating new business development and investment through direct trip expenditures and real estate sales; and furthering opportunities to enjoy "peaceful landscapes and opportunities for biking, hiking, kayaking, sailing, or just breathing in the fresh sea air and relaxing in locally owned and operated restaurants and Inns are some of the enjoyable things about the Islands.

Similarly, a wide variety of interests, said to be met in exploring the Island County Historical Society Museum, Admiralty Lighthouse, Meerkerk Gardens, antique shops, art galleries, heritage farms working studios, farmers markets, wineries, and the Coupeville Arts Center with year-round fine art classes, are but a few of the choices. The Town of Coupeville Comprehensive Plan, adopted in 1994 and revised numerous time through 2003, touts the things that foster the Coupevillian lifestyle. It also indicates an intention to guide the future growth, character and development of Coupeville for the next ten to twenty years. The plan declares numerous goals, including "to promote **a development pattern that recognizes and enhances its historic small-town character; to provide a self-balanced mix of land uses, including recreational and cultural opportunities, to preserve the town's rural and agricultural heritage.** There is no mention in Coupeville's Comprehensive planregarding OLFC and FCLP operations, or the Navy. I'm quite certain that is not intended as an insult to the Navy, but rather is support for the notion that **Coupeville values its small town nature, quaint size and architecture, and slow pace of life.** I once asked a City Councilman why Coupeville had a city wide speed limit of 25 mph aon every street and road in Coupeville, but Highway 20, which is controlled by the State of Washington. He told me that he would change Highway 20's speed limit within the Coupeville City Limits, to 25 mph, if only he had the authority (I was against the city-wide speed limit. Still am. But I understand and accept it). I mentioned the absence of chain restaurants to my real estate agent (married to the City Councilman referenced above) who hails from one of the pioneer families that settled Ebey's Landing, when I was negotiating the purchase of the lot upon which my home now sits, and she boldly told me that if I wanted to eat grease I should go to Oak Harbor. I think that was an insult intended only for me. Coupeville, simply stated, is far different from Oak Harbor, much less the Navy. In the intervening years since then, I have learned that Coupeville is a special place if you accept the things for which it stands. And many Tourists, visitors, and Coupeville residents are living proof.

In an issue of the USA Today newspaper, an article written about Coupeville by Nicole Crawford, and noticed by me at www.usatoday.com, states that Coupeville, the second oldest town in Washington, still provides a taste of waterfront farm life. In regard to "Outdoor Ventures" she writes that Colonel Isaac Neff Ebey was one of Whidbey Island's first settlers, and the scenic Ebey's Landing is named after him. She describes the Coastal bluffs of Ebey's Landing as towering as high as 270 feet, making them the tallest bluffs in the State of Washington. For a moderately easy hike she advises starting at the Prairie Overlook and continuing for half a mile to the visitor's center, which is located in a 1850s homestead. Finally, she says, if you are up for a challenge, to continue on the trail and climb the bluffs to gain access to views of the Olympic Mountains, Vancouver Island, Strait of Juan de Fuca and San Juan Islands."

I have done all of that many dozens of time over the years. It is a 2 to 2 ½ hour easy hike that exposes the hiker (including out-of-town friends), in a compact but compreshensive way to the wonders of the area that is and surrounds Coupeville. It is a place where visitors can come, visit, and escape the noise and business of their everyday lives, elsewhere, and capture the feeling of living in harmony with nature and the environment, appreciating both the wondrous visuals of mountains, boats, eagles. . .

These aspects of life on Whidbey and around Coupeville in particular bespeak a long-standing culture and way of life far different from city life, military life, or even life in Oak Harbor. Twice in the 14 years I have resided full-time on Whidbey Island, the City of Oak Harbor has expended $40,000 for outsiders to perform a study of how best Oak Harbor could use its waterfront to attract Tourists or businesses. After however many years Oak Harbor has been an incorporated municipality, they apparently still are searching for a new identity. I say that only to draw a sharp and distinct difference between Oak Harbor and Coupeville. Oak Harbor is

seeking the change that will make Oak Harbor more attractive as a place to do business or attract t\Tourists. Coupeville knows, understands and is willing to fight to preserve the heritage and life style that has existend for well over 150 years. The Navy comes along and now is seemingly fighting to destroy the character, charm, quaintness that is Coupeville and its Environs, with ever increasing levels of noise and noisy flying days at OLFC.

It is apparent that the place we call Coupeville and its Environs should not be burdened with any FCLP operation conducted at OLFC because the way of life there and the impact of FCLP operations is clearly in conflict with that way of life. Yet, that is what the Navy has been doing and is proposing to do up to 575 percent more. It is one thing for the Navy to expand NAS Whidbey. It is quite another to do what the Navy is proposing to do to Coupeville and its Environs. The Navy's DEIS would enlarge the sound contours reflecting Growler FCLP operations to encompass all of Coupeville for the first time ever. It would also increase from 6,100 FCLP operations conducted per year at OLFC to as many as 35,100, which represents a **575 percent increase**. That would be unconscionable and intolerable and absolutely in conflict with the oft expressed lifestyle and Tourist-based economy of the quaint village that is Coupeville. The Navy's DEIS shows that the increase in acreage subjected to such an increase would impose a sound level of between 65 and more than 75 dB DNL of at least an additional 4,144 acres, a 50% increase (See Table E-1), as well as another 500-1,000 acres impacted by a contour range of 55-65 dB DNL. No reasonable person could persuasively argue that the Tourists who are drawn to Coupeville's ambiance, solace, and beauty would continue to be drawn to listen to the debilitating noise that is the noise from Growlers performing FCLP operations or that small acreage agricultural endeavors could be sustained. Tourists would flee from Coupeville in a New York second. Further, once Coupeville's economy is devastated, how will the Navy or anyone else bring it back. For the residents who now reside in or around Coupeville, the end might be near, and the Navy cannot even present publicly an even-handed, objective DEIS that mentions Coupeville's economy.

Notwithstanding the mandates upon the Navy that are included in NEPA, to respect the interests of citizens in areas affected by its plans and proposals (See Section 1, My Comments), the DEIS does not address the impacts of any of its 10 proposals contained in the DEIS upon Tourism. While it does discuss in its own terms, the" Economy, Employment and Income [and Affected] Environment" of "NAS Whidbey Island Complex" and "Island and Skagit Counties", it ignores Tourism, notwithstanding its impact on Coupeville (See Secs. 3.10.2.2; Sec. 5.4.10.3).

Even Navy literature is confounding. Included in the documents available on the Internet, there is a document welcoming newly assigned personnel with this: "Whildbey Island is about 35 miles long [actuallly it is far longer than that] and is ranked as the fourth-longest and fourth-largest island in the contiguous United States. Here you will find abundant recreation possibilities, from boating, hiking and biking to hunting and fishing (www.mybaseguide.com/navy/13-719/nas_whidbey_island-arrival (2016). Then it shows its Navy side, in reciting the Navy's History on Whidbey island, with this:
"NAS Whidbey Island was home to the majority [but not all] of the Navy's Prowler squadrons, and now [is] the **only base for all the new EA-18G Growler squadrons** [Emphasis added]. It supports 14 Prowler/Growler squadrons, 10 of which deploy to aircraft carriers, three expeditionary squadron not assigned to carrier air wings and one Whidbey-based training squadron" (www.cnic.navy.mil). Those Growler numbers don't include the Growlers proposed to be added to NAS Whidbey's inventory pursuant to Alternative 1, 2, or 3 per the DEIS.

Economically, the scenario I have attempted to paint in this section, if implemented, would be catastrophic to Coupeville and its Environs. Tourists would be the first to disappear. Then some of restaurants, followed by small businesses would fail. Home prices in Central Whidbey,

which have never recovered anywhere close to 2006-2007 levels, would decrease even further with previously unknown levels of Navy growth at NAS Whidbey. And of course, up to 35,100 FCLP operations at OLFC.

Is this what the Navy means when it says it wants to be a good neighbor? All of this, without mentioning or considering a worthy re-location of FCLP operations to an OLF designed specifically for FCLP operations, and where there are no people living in towns nearby like Coupeville, or nearby so as to be beneath FCLP flight tracks.

Coupeville and its surrounding neighborhoods is a place that absolutely should not be burdened involuntarily, or impacted adversely, by a long-term, permanent expansion of the Navy's Whidbey island presence involving OLFC, reflected in any or all of the four proposed alternatives in the DEIS. The four proposals, in essence, would entail a unilateral exercise of power by the Navy to impose upon Coupeville and its Environs, the horrifically repetitive, incessant, and dangerous intensity of Growler noise which obviously would accompany such choice. Further, the DEIS inaccurately and deliberately mischaracterizes the intensity of that noise, which is the primary basis of civilian complaints, by choosing a computer program to model computer-projected noise characteristics and that disregards the actual decibel levels of noise, or the full annual dosage of noise that is in excess of OSHA limitations and requirements. While the Navy obviously has sufficient power to cram or jam any of the four proposals into the part of the unique, idyllic world of Coupeville and its Environs, stated very simply, that would be the wrong choice.

As an alternative, there are areas in the Pacific Northwest where a new FCLP Landing strip, station, or NAS could be constructed where there are no civilians whose lives would be adversely impacted by Growler flight tracks involved in performing FCLP operations. A new OLF also would resolve the issues that presently exist regarding the present use of OLFC. There is no doubt that if the Navy ignores these issues, it very likely will heighten the existing adverse impact upon the civilians who are the people who live in Coupeville and its Environs, by weakening or destroying the economic benefits from the Tourists and other visitors who come to Coupeville to enjoy a week, a weekend, or a day throughout the year. The Tourists and other visitors who come to Coupeville and Central Whidbey to enjoy a week, weekend or day away from the hustle and bustle of their lives wherever, would be greeted by noise beyond the levels presently existing. It is unrealistic to say that Growler noise, increased by up to 575 percent by proposals in the DEIS, would not matter.

The Tourists and visitors to Central Whidbey would be the first to flee to some other idyllic location. That could effectively damage the economy of Coupeville, whose merchants, inn-keepers, and B&B proprietors would suffer, along with restaurant owners, virtually all of which are locally owned and operated. That would create a public relations nightmare for the Navy. Tourists and visitors who come to Coupeville for a week, weekend, or day would avoid the noise because the ambiance and attraction that is Coupeville, as described in the article quoted above, could not co-exist with the Growler noise that already has generated enormous amounts of complaints and even lawsuits from actvists. If the Navy chooses to make the situation worse than what reasonably could be expected, other than that the complaints and lawsuits would/could increase exponentially and become a serious pubic relations nightmare for the Navy. That should not be read as a threat, but rather as an educated guess that making a choice that will exacerbate the presently existing bad situation for the residents in Central Whidbey Island, and that could impel many more citizens to join in fighting the Navy in the court of public relations and in the halls of the statehouse, the White House, and Congress.

These need not be resolved by an "either-or" solution, which the Navy seems determined to compel. Rather, it is clear that the presently existing Growler-noise based issues would be resolved by a new OLF, but so far the Navy won't even consider that as an alternative

proposal., which seems to be a mandate in this instance, required by NEPA. NEPA does not require the devastation or destruction of Coupeville's chosen path of life, especially if there are reasonable alternatives, which there are as addressed in Section 6 of my comments.

The alternative of relocating OLF is simply a conclusion that follows from taking a close look at the present depth of the problem, Navy intransigence in recognizing and permanently resolving the problem, and preventing the Navy making a unilateral decision in this particular instance that would devastate not only the economy of Coupeville but investments and home values for many of us Central Whidbey Islanders. A new OLF for FCLP need not entail moving the permanent assignment of any EA-18G squadron from NAS Whidbey, but it could have the side effect of reducing or eliminating most or all of the FCLP operations performed at NAS Whidbey. Then, could not the Navy learn to co-exist with all of Whidbey Island? There would still remain an enormous amount of noise generated by high-speed, ascending and descending overflights, but those could be tolerated and endured, if not loved. Maybe even some Pilots and Crew Members of EA-18G would even move to Coupeville.

SECTION 4.

DEIS' ECONOMIC BENEFITS TO COUPEVILLE & ENVIRONS MEANS NEGATIVE IMPACT BURDENS

The purpose of this Section is to show that the Draft Environmental Impact Statement (DEIS) for continued or increased EA-18G "Growler" FCLP Operations at OLFC is a burden upon Coupeville and its Environs that will be increased bigly by the selection, approval, and implementation of any of the ten proposed alternatives set forth in the DEIS. It would be tantamount to a declaration of economic war by the Navy upon the citizens who live in the vicinity of OLFC or Coupeville.

Strong words? Let's see if I can persuade you that they are accurate. I believe they are.

The DEIS includes many many pages, figures, and charts, including two that I wish to draw to your attention. Figure 3.6-3, in Volume 1 of the DEIS, shows in geographic terms, with a gold-colored hue, the off-installation historical properties near Ault Field and OLFC, as distinguished from non-historical properties.That Figure also shows the "APE", which is an abbreviation used in the DEIS for "Area of Potential Effect." The APE is encircled by a thin sienna-colored line around OLFC, and indicates that the APE near OLFC encompasses about 40-45% of the historical properties near OLFC.

The Navy, in the DEIS, states that it uses three ranges of decibel levels, expressed as DNL's (an average that includes quiet hours of nighttime to calculate a 24-hour average), in showing and describing the impacts of the four Alternatives under consideration. The lowest range in the DEIS is the range between 65-70 dB DNL and the Navy bases that choice upon a 38-year old study by Schultz (See T. J. Schultz Synthesis of Social Surveys on Noise Annoyance, Jour. Acoust. Soc. Am., p. 377-405 (1978)) that was updated and modernized years ago bu Schultz himself as well as numerous others. The DEIS, in part, defends its use of that outdated study by stating that "research [namely the 1978 un-updated Schultz study] has indicated that about 87 percent of the population is not highly annoyed by outdoor sound levels below 65 dB DNL" and that "most people are exposed to sound levels of 50 to 55 or higher on a daily basis. In other words, the Navy contends that there is virtually no reason to include a lesser range because it would not apply to a significant percentage of the affected populations. That has been proven to be inaccurate by several researchers (See e.g., Sanford Fidell, The Schultz Curve 25 Years Later: A Research Perspective (2003); and H. Miedema and H. Vos, Exposure Response Relationships for Transportation Noise, Jour. Acoust. Soc. Am. p.3432-3445 (1998)). The 1978 Schultz study, in synthesizing data from several noise sources, assumed incorrectly that the relationship between people who were "highly annoyed" at the 60 dB DNL level remained the same regardless of noise source. Indeed, the 13% determined by the 1978 Schultz study to be "highly annoyed" was based on three distinctly different noise sources that were mistakenly synthesized for the study on the basis that source didn't matter. The sources in question were aircraft noise, road noise, and railroad noise. Twenty years later, the Miedema & Vos study (Id., at p.1998), among others, determined that there are widely differing levels of annoyance within each of those three categories of noise source: aircraft noise, road noise, and railroad noise, and provided a chart based upon updated data that verifies that point for 5 different DNL levels of aircraft noise:

Percent Highly Annoyed				
DNL	Miedema & Vos			Schultz
	Air	Road	Rail	Combined
55	12	7	4	3
60	19	12	7	6
65	28	18	11	12
70	37	29	16	22
75	46	40	22	36

Thus, if the Navy wanted to use a threshold of 12% highly-annoyed persons, as being a sufficiently large group of citizens to draw additional contours, then the Navy should have drawn or re-drawn contours both for the 55-60 dB DNL range (12%) and the range 60-65 dB DNL(19%). Together, those two additional contours represent 31% of the highly-annoyed population subjected to the DNL's between ranges for 55-65 dB DNL and are worthy of consideration instead of relegating their views to the bin of those whose views are worthy only of being ignored and disregarded. I implore the Navy to do so before making its decision. Otherwise, it would appear that the Navy did not mean what it says in the DEIS about the 12% of the population argument referenced above; and would be ignoring fully 31% of the population highly annoyed with Growler noise within those 55-65 dB DNLs. Further, keep in mind that, consistent with the Schultz update, there are numerous studies indicating that the rate of annoyance for aircraft noise annoyance clearly is higher (i.e., a lower dB threshold) than for commercial aircraft, road noise or railroad noise. Continuing to use the 1978 Schultz study is nothing more than using the lower thresholds for persons who are highly-annoyed by railroad and traffic noise in order to minimize the threshold for persons highly-annoyed by aircraft noise.

In drawing the contour lines for the "No Action Proposal" (i.e., a continuation at OLFC of 6,100 FCLP operations per year), the Navy inexplicably doesn't use just the three ranges indicated above. Without explanation, the DEIS contains a fourth line, namely, a 60 dB DNL line (See, e.g., Figure 3.2-5). Then, in showing the effects, by contour line drawings, of the Proposal known as Alternative 1, Scenario A, the contour lines representative of the status quo of 6,100 FCLP operations at OLFC per year reflect that the contour lines showing the "No Action Proposal" has wider, greater effect at 60 dB DNL than the Alternative 1, Scenario A , proposal viewed from its 65 dB DNL contour line (Figure 4.2-5). * Maybe there is a reason. The only one I am able to see is to obfuscate and confound the real impact to support a finding that selecting Alternative 1, Scenario A, could be said in reliance on the figures above to be of "No Significant Impact."

*It also shows that contour lines, which express a 24-hour average dB DNL level for the "No Action Proposal", are unaffected by high temp FCLPs that of necessity would mean a higher intensity within FCLP operations within the same period of time less than 24-hours, or a higher number of FCLPs on a day, which would increase the noise average for that day. If that calculation was made. I'm not sure it was made.

But, on second thought, maybe there is one other impact. The Navy's preference for discussing no DNL range below 65 dB DNL is belied by its use of a contour line based on the 60 dB DNL as reflected in several Figures in the DEIS, including Figure 3.2-5, that would change the APE numbers which are used in several instances to establish an easily understood visual aid to understand the impact of the effects of any of the four proposals on such instances. Similarly, redrawing the contours relative to OLFC activities would enlarge the contours if the contours are redrawn to include "lobes" as presently done for Ault Field flights (see my discussion in Section entitled "DNL and It's Value). At this point, I invite you to look at each of Figure 3.5-3 Parks and Recreation Areas in the NAS Whidbey Island Complex Affected DNL Noise Contours; Figure 3.6-1 Location of Historic Properties; and Figure 3.6-3 Location of Off-Installation Historic Properties. Starting with Figure 3.6-3, I only wish to discuss the circle around OLFC that is a sienna color and that overlaps the Historic Properties near or in Coupeville. The sienna-colored line represents the APE, the area of potential effect of the DEIS. Rather than tackle the discussion in the DEIS, I want you instead to refer to to Figure 4.2-5 which shows contour lines of 60 dB DNL, both for the No Action Proposal, for the Alternative 1, Scenario A, proposal, and for the Alternative 1, Scenario A, proposal for high tempo FCLPs. Now, for each of those lines, compare the location of the Historic Properties close to Coupeville, and notice that each of those contours would place more of those properties within the noise contours. Finally, visualize in the top left corner of Figure 4.2-5 where a 55 dB DNL contour line would/should be drawn around Coupeville. A 55 dB DNL contour line within which 12% of the Population would be "Highly Annoyed by Growler noise is significant, right?

If you will perform the same exercise for Figures 3.6-1 and 3.5-3, you will see that a 55 dB DNL would become more burdensome for the Navy to support a finding of "No Significant Impact." In my opinion, while figure 3.5-3 shows no APE contour, you can understand the impact that a 55 dB DNL contour line might have on a person wishing to enjoy the outdoors, includingTourists, visitors, and residents of Central Whidbey.

Somehow, to my way of thinking, that place we call Coupeville, should not be burdened with any FCLP operation conducted at OLFC, certainly not a burden that is increased by any measure. Yet, that is what the Navy is proposing. It is one thing for the Navy to expand NAS Whidbey. It is quite another to do what the Navy is proposing to do to Coupeville. According to the Noise Contours drawn for Alternative 1, Scenario A, the contours (similar to Scenario A for Alternatives 2 and 3), would be enlarged so that they would encompass all of Coupeville for the first time ever. It would also increase from 6,100 FCLP operation conducted per year at OLFC to as many as 35,100, which represents a 575 percent increase. That would be unconscionable and intolerable. By the Navy's DEIS, the increase in acreage subjected to such an increase would impose a sound level of between 65 and more than 75 dB DNL of at least an additional 4,144 acres, a 50% increase (See Table E-1), as well as another 500-1,000 acres impacted by a range of 55-65 dB DNL. No reasonable person could persuasively argue that the Tourists who are drawn to its ambiance, solace, and beauty that is Coupeville and its Environs would continue to be drawn to listen to the debilitating noise that is the noise from Growlers performing FCLP operations. They would flee from Coupeville in a New York second. Further, once Coupeville economy is devastated, how will the Navy or anyone else bring it back. For the residents who now reside in or around Coupeville, the end might be near, and the Navy cannot even present publicly an even-handed, objective DEIS that discusses the impact of 35,100 FCLP's executed at FCLP upon the Tourist industry needed by Coupeville for its way of life, its character, and laid-back attraction to thousands of Tourtists.

Figure 3.6-3 Location of Off-Installation Historic Properties

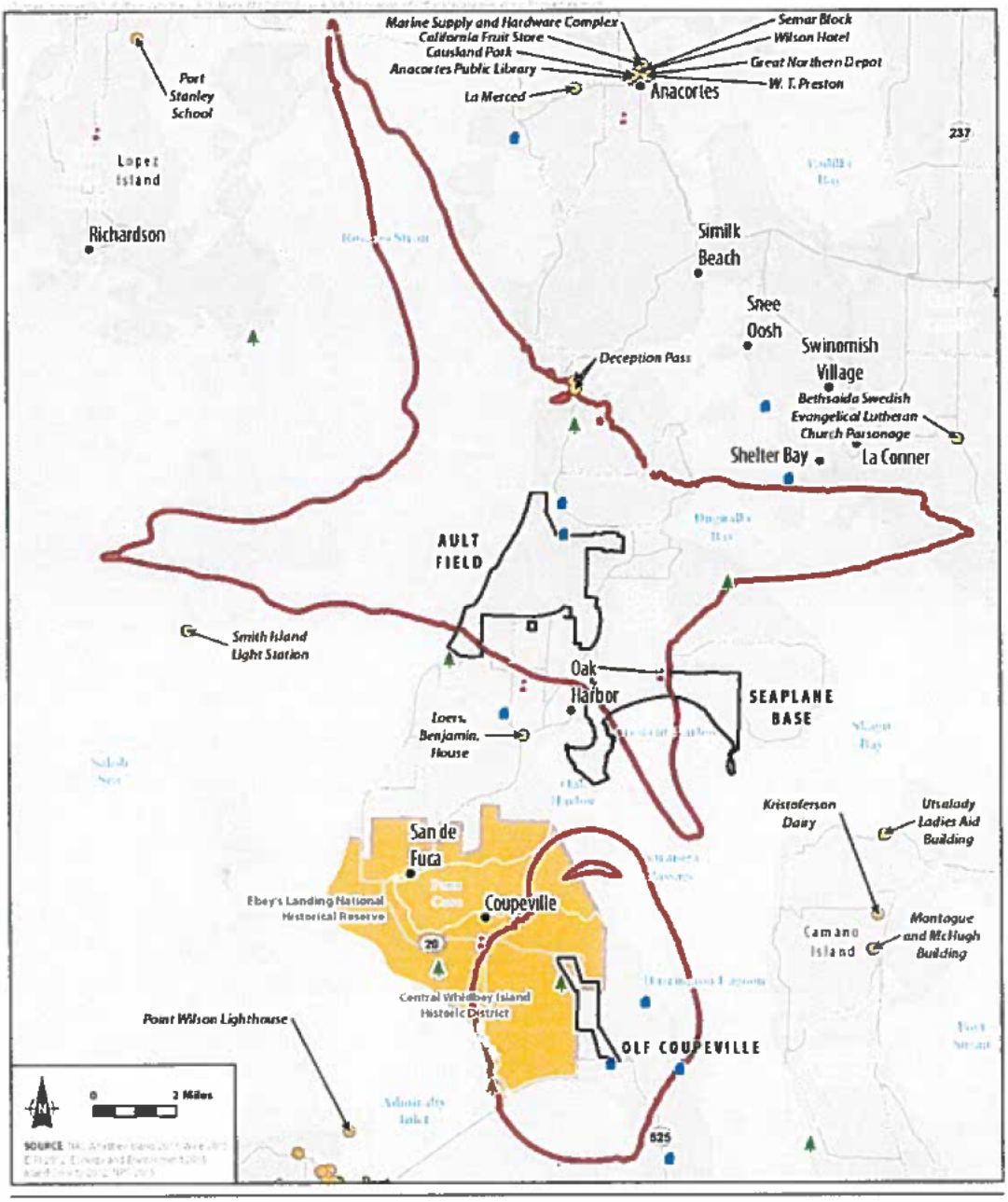

Figure 3.6-3
Location of Off-Installation Historic Properties
Whidbey Island, Island County, WA

Figure 3.6-1 Location of Historic Properties

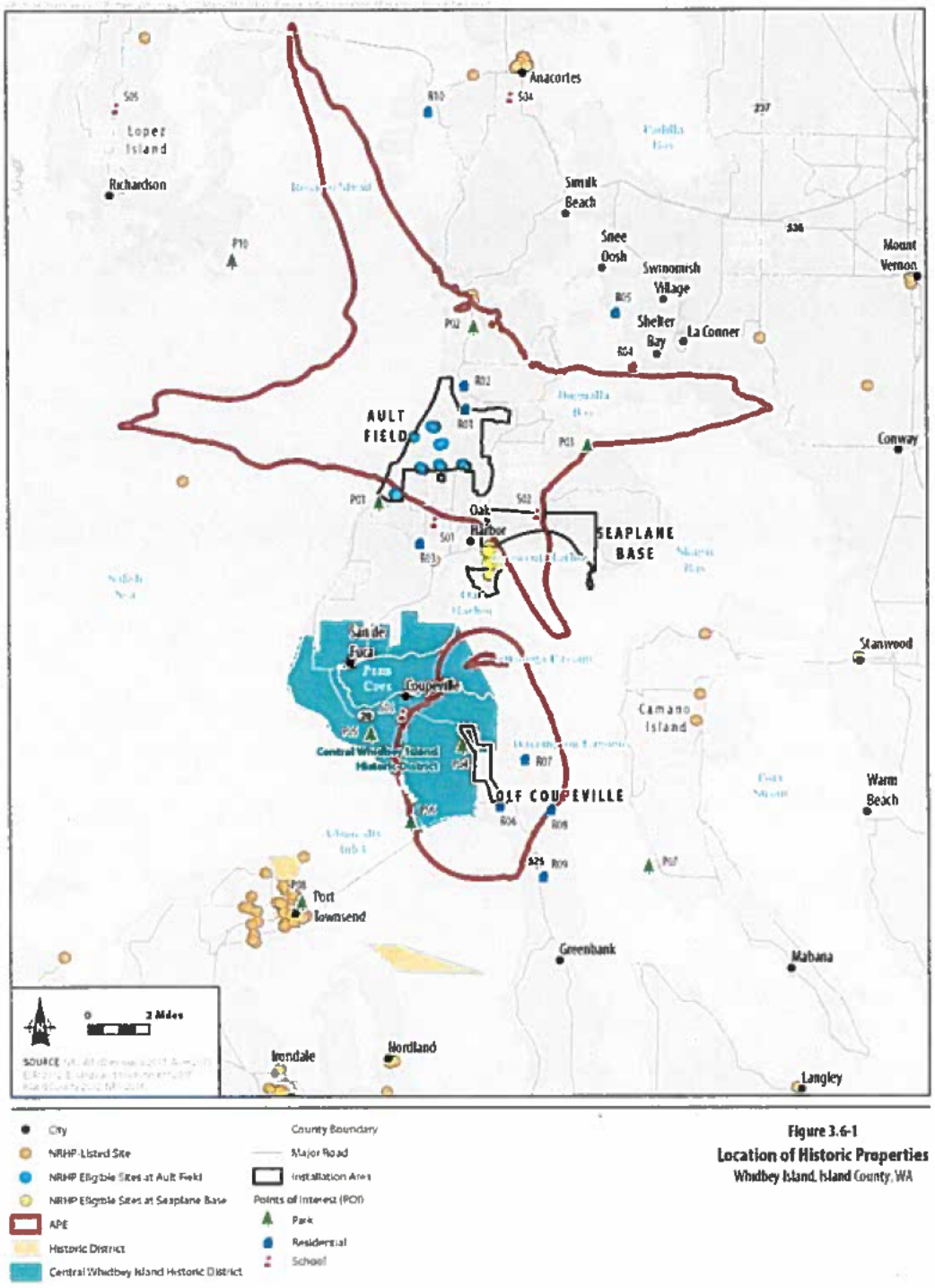

Figure 3.6-1
Location of Historic Properties
Whidbey Island, Island County, WA

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Figure 3.5-3 Parks and Recreation Areas in the NAS Whidbey Island Complex Affected Environment DNL Noise Contours

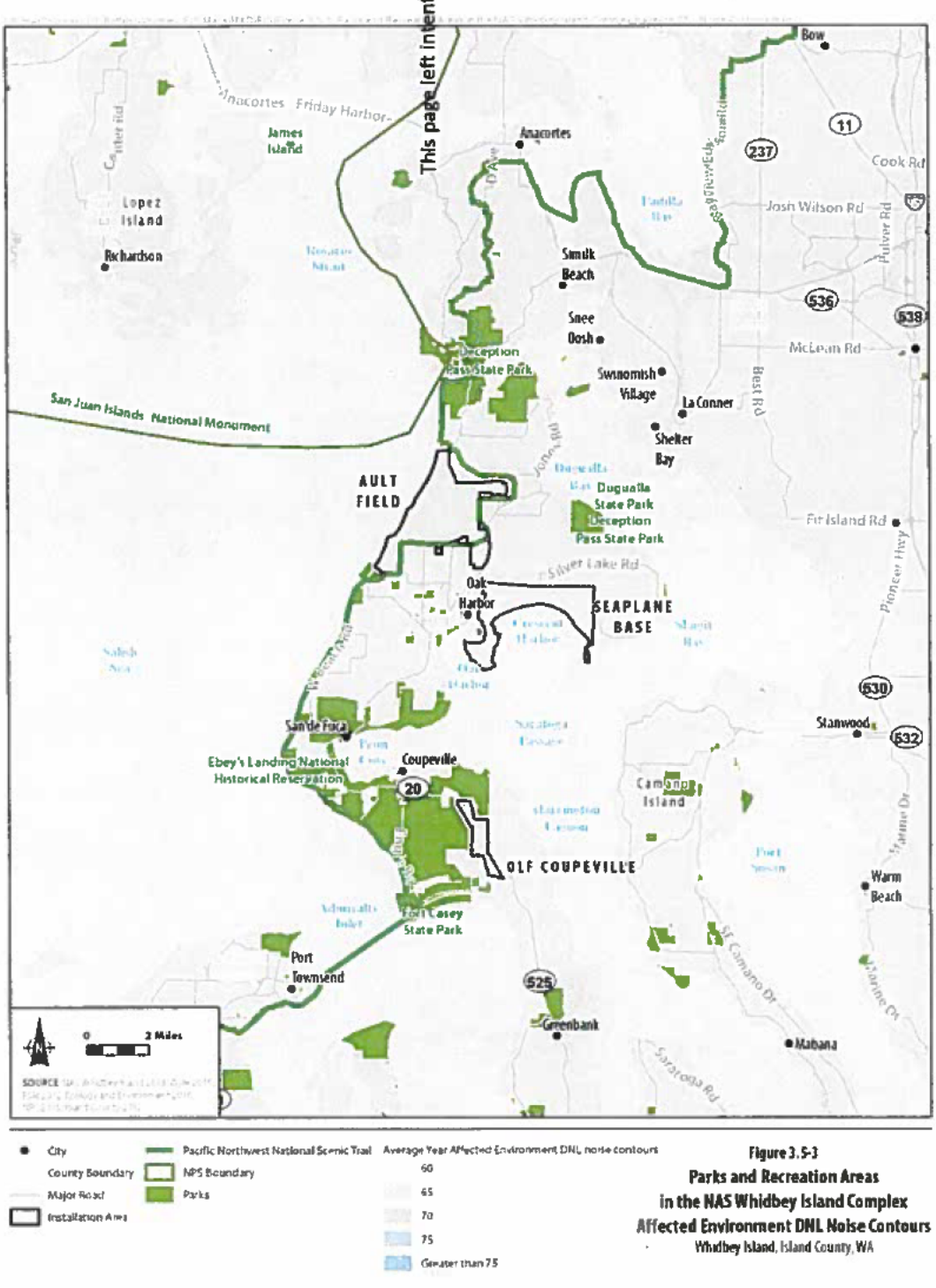

Figure 3.5-3
Parks and Recreation Areas
in the NAS Whidbey Island Complex
Affected Environment DNL Noise Contours
Whidbey Island, Island County, WA

Figure 4.2-5 Alternative 1A DNL Noise Contours for OLF Coupeville

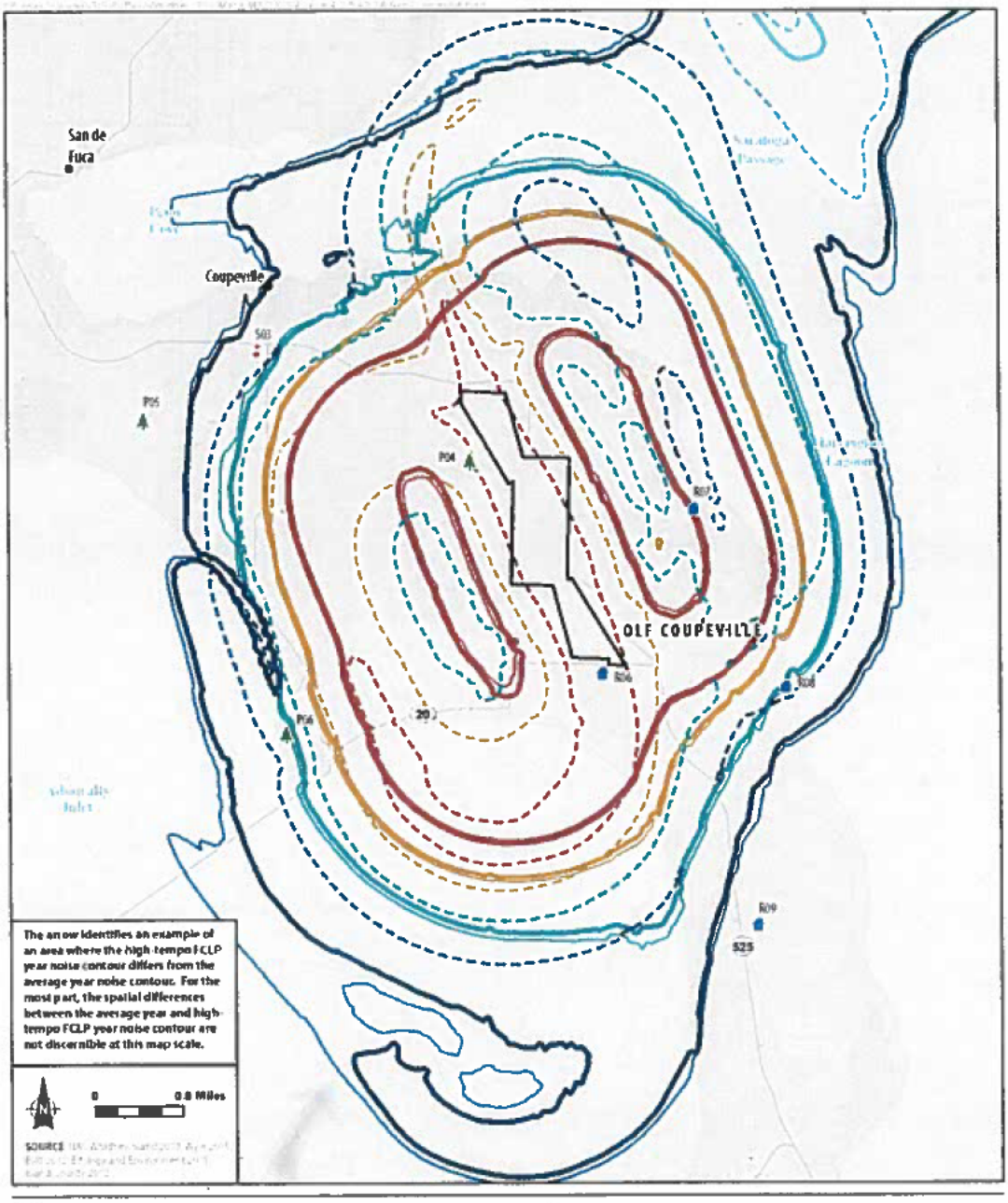

Figure 4.2-5
Alternative 1A DNL Noise Contours for OLF Coupeville
Whidbey Island, Island County, WA

Figure 4.2-4 Alternative 1C DNL Noise Contours for Ault Field

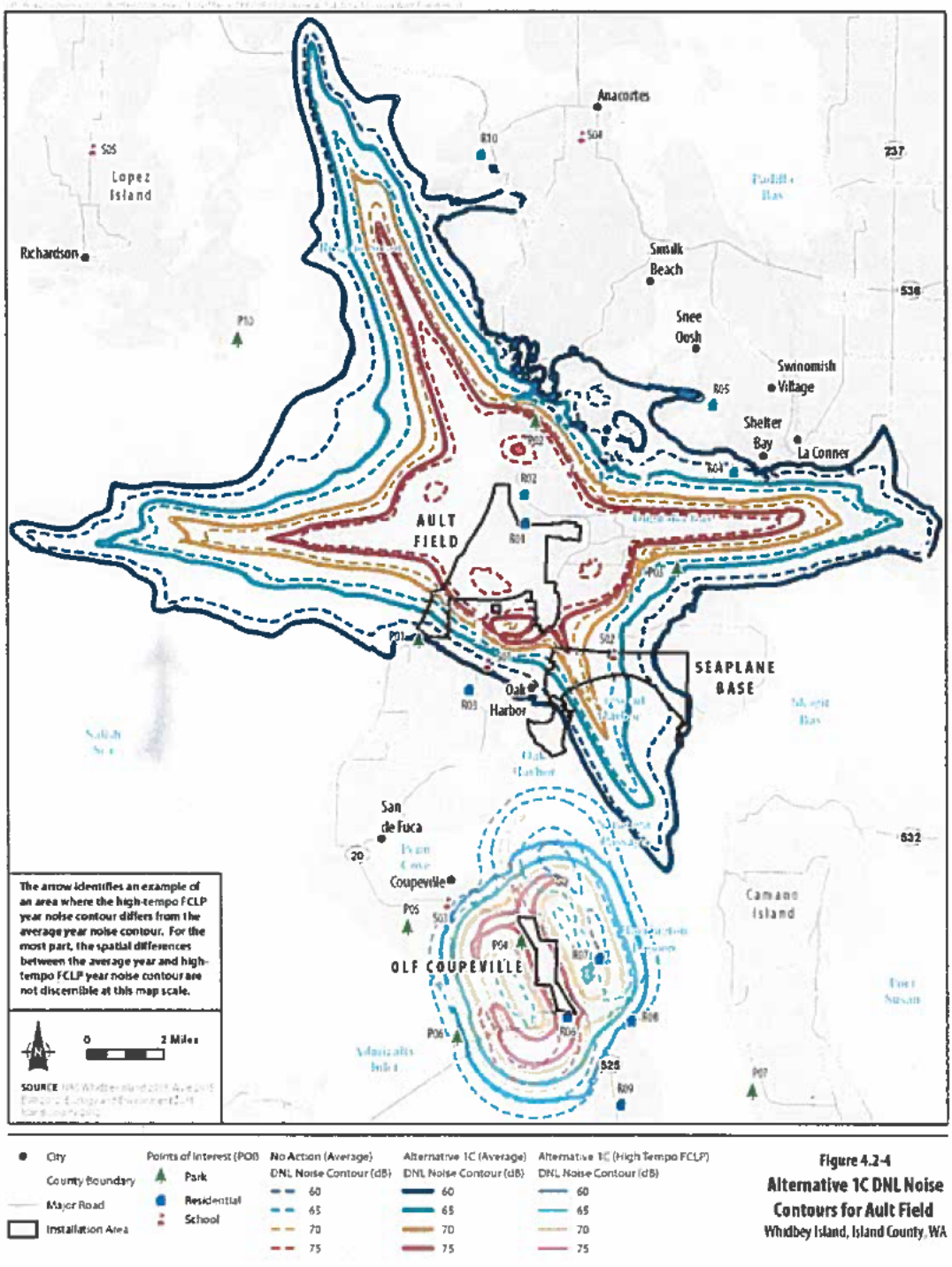

Figure 4.2-4
Alternative 1C DNL Noise Contours for Ault Field
Whidbey Island, Island County, WA

SECTION 5.

ELECTRONIC WARFARE AGAINST ONE CIVILIAN?

Whose Actions Caused Persistent Destruction Over Time of Electronic Equipment in My Home? A Documentary Accounting.

Having grown-up in a small idyllic town in the picturesque mountains of Northern California, mostly after the conclusion of WWII and during the relative boom years of the Eisenhower Presidency, it was "normal" for a young man (me) who got his yearly fill of fishing, hunting, and playing football, basketball, and baseball, to put on my vision of an "Ivory Tower" people who had achieved status in society and in my personal world - such as school teachers, coaches, members of the military from my hometown, like Robert Keluche an Air Force Pilot in the 50's, Freddie Smades a Navy Pilot who went to Norway in the 1950's and came home with a striking blonde bride and became my hero, various respectable politicians, ministers of the teachings of the Bible, and numerous other types and categories of people. One by one, events committed by individuals in virtually all walks of life, lowered substantially the people on my Ivory Tower. Fast forward, if you will, to the early 2000's to my home on Whidbey Island.

In Mid-2006 (b) (6) I encountered events that drew into question, at least in our minds, the quality of the electricity being delivered to our home. We contacted PSE and, after describing in detail the facts causing our concerns, the PSE came to our house, performed a number of tests over the course of a couple or hours or so and indicated that the quality of the electrical service was perfectly normal. Nevertheless, they hooked-up monitoring equipment and tested the quality of the electricity for approximately two weeks. After that period of time, they examined the recorded data and indicated that the testing revealed nothing diabolical or abnormal.

Thereafter, my suspicions and concern remained and I contacted a licensed, commercially-rated Electrician, CK Electric, and described the problems I had encountered and the testing that had been done by PSE. And I and asked about the installation of a "whole-house surge protector." I opted to incur the expense of $576.11 to have the surge protector installed in the Summer of 2010, which protects our entire home and its contents from surges in electrical power service from PSE. Sadly, that did not coincide with the termination of my problems. But I can say that, as the PSE indirectly predicted, that whole house surge protector has not been "tripped." Not even once in six plus years.

I then began to discuss possible sources of my problems with other people A couple of people suggested that the source of the problems I had encountered, over time, plausibly could be the United States Navy, with their vast and powerful array of electronic warfare equipment. By this time, we had realized that each of individual devices that had been destroyed beyond repair were devices that received or transmitted information delivered wirelessly, via Wi-Fi or radio signals within my home.

Over time, subsequent episodes resulted in the further destruction of electronic equipment installed in my home, at random times.

Further, I had checked with the neighbors who live in my subdivision consisting of 24 lots of about one acre each. Not a single, other person or family, has incurred any such or similar losses.

Ultimately, (b) (6)) called NAS Whidbey and was passed-off to a couple of different people, apparently qualified to discuss our theory that personnel aboard a Prowler or Growler, or both, while flying overhead of our home, may have unilaterally declared Electronic War against us by utilizing their Electronic Warfare equipment, covertly or overtly, intentionally or unintentionally, to destroy electronic equipment in my home, having a combined value of more than ten thousand dollars.

While these episodes may sound preposterous and beyond the pale, no on can deny that the events occured or that the expenses we endured, incurred, and paid over time (and for which we have every original receipt) are real. And no one in my neighborhood or elsewhere in sphere of my knowledge on Whidbey island has suffered similar losses. And no one has offered a reasonable alternative conclusion. Who else on Whidbey Island has that capability and opportunity?

What is Electronic Warfare? Electronic Warfare utilizes electromagnetic energy, which is energy that is reflected or emitted from objects in the form of electrical and magnetic waves; and can have enormously powerful destructive effect. On the good side, Electromagnetic energy is utilized by computers, cell phones, microwaves, tv remote controls, weather stations, cell phone towers, radars, remote controls, wi-fi's, bluetooth, and other similar home devices for valid communications purposes. It also is utilized by militaries around the world to facilitate ground to air, air to air or ground, and other types of radio communication, radar, and radio and other controlled guidance systems (for weapons like ground to air missiles). Electronic Warfare utilizes electromagnetic energy in beams and bursts to destroy, control, or disable an enemy's ability to use its myriad electronic systems, which in turn facilitates relatively unimpeded access to electronic equipment by the U.S. military in conducting its military operations. In the Pacific Northwest, the Navy practices detecting, identifying, and locating the kinds and types of electronic signals that typically may be expected to be encountered when flying above hostile territory. Like my home?

One question that arises, naturally, is whether someone in the Navy did this (b) (6) (6) . My answer is whom else flies around our neighborhood at low or even moderately high altitudes, and at times unimpeded by supervision? Opportunity exists when Growlers are departing from or arriving at Ault Field for or from points beyond Whidbey Island, and just before entering the FCLP patterned flights or when exiting control by OLFC operations personnel and before making contact with Whidbey Approach. There is no one but the Navy, in my opinion, around Whidbey island. They have the equipment, they have the opportunity, they have the time, but do they have the motive?

I have spent hours upon hours asking myself this question: What have I done in my past that would motivate someone to commit an act that could lead even to a dishonorable discharge at a minimum, or to criminal charges? In the 14 years I have lived on Whidbey Island, I have never met a single pilot, other than a couple of helicopter pilots whom I talked to in the presence of (b) (6) flew an amphibious de Havilland Beaver, circa 1944, to the Seaplane Base, deployed the wheels at an appropriate time, and crawled up the concrete ramp to a standing ovation (there were no chairs!) at the celebration of the 75th Anniversary of something Navy, maybe Navy Aviation. No suspects there.

I can only come up with three potential and plausible answers.

First. On February 15, 2006, I had shoulder surgery performed in Seattle by Dr. Joel Shapiro to reconnect the rotator cuff on my left shoulder that had been ripped off the bone in a fall involving a collapsed ladder. Prior to the surgery, I indicated to Dr. Shapiro that I had been a pitcher and that, while I had never received a call from a team in the Big League, I didnt want to tell them, if they called, that I could not go because of him. So, he drilled three holes through the appropriate bone, used titanium thread to tie the affected tendon to the bone, used a medical rasp to generate bleeding to foster scar tissue and the shoulder was far better than before. After a few weeks, the Doctor prescribed physical therapy, which was performed on Whidbey Island by a Prowler pilot's wife. While his wife and I had an immediate connection that permitted us to communicate easily and willingly with one another, neither of us ever made a "move" to explore or commence a romantic relationship. For one thing, there was an approximately 25-30 year difference in our respective ages. Clearly, my age was the highest number. For another, (b) In point of fact, I had even broached the subject with the Therapist of her coming over for dinner, along with her Pilot husband and their kids. She didn't think the Pilot would be interested. That idea apparently was dead on arrival. That is the only relationship to which I can point to, and it does not seem much more than far-fetched.

While I have zero evidence that this particular Pilot or his Crews (over time), or friends of this particular Pilot who themselves are Pilots or Crew Members did anything, I remain nonetheless the victim of having had on numerous occasions losses that are difficult to explain, absent Navy involvement, which I acknowledge is a possibility as well. I will say, also, that during my very satisfying 6-year stint as a Regular Officer in the United States Air Force (my letter of resignation of my commission was accepted but delayed for one year because of Vietnam and the need for Officers with my AFSC (Air Force Specialty Code), according to President L. B. Johnson). I spent a full year on a remote assignment in Asia and dealt personally with the extraordinarily high number (nearly 30 percent, as I recall) of Enlisted Personnel under my direct supervision who had received Dear John letters from their spouses; and a higher percentage for personnel who received Dear John letters from girl friends. Military life exacts a high

price far too often for both Officers and Enlisted Personnel because of temporary duty and permanent changes of duty in remote locations. And it is tough to be away from home and not know or understand changes that may be occurring. That, however, even if true, would not excuse what has happened (b) (6) in regard to the damages we have sustained.

Second. The second potential source is that my home may have been a case of mistaken identity. I do know one of my neighbors has, at some point in the past, been an active member of an activist group opposing the utilization of the OLFC for any purpose (and I have only recently reached the same conclusions regarding OLFC). I instructed (b) (6) (to the extent I am able to give her instructions) that, when she called NAS Whidbey, to discuss the history of our electronic equipment losses, and to also ask the Navy representative whether he knew or knew of our neighbor. He answered in the affirmative and offered his condolences. That may be humorous, but it confirms the possibility that someone, or more than one someones, may have thought they were bombarding my neighbor's home with Electronic Warfare energy, instead of mine. The Navy representative called back a day or so later, and while he would not confirm that he had discovered evidence implicating the Navy or Navy personnel, neither would he deny Navy or Navy personnel involvement. Consider this scenario: Suppose, on the way to or from a training site (Eastern Washington, for example) where Electronic Warfare practices had occurred on several occasions, the crew or Pilot of a Prowler or Growler, or both, flew over my house and directed a beam or burst of destructive electromagnetic energy at my house. How could that be detected, absent monitoring, supervision, and concern for people like me? As a possibility, I have had that confirmed.

Third. There exists the possibility that the source is pure spite, meanness, and/or a "Screw Him" attitude that should not exist. It is clear to me, that there has developed on Whidbey Island an attitude toward people who live in the OLFC vicinity that is, at best, unfortunate. Many of us, however, (probably the majority of us), are NOT anti-Navy people. We are as God-fearing and as honorable as any of the people who live in Oak Harbor or that are stationed at NAS Whidbey. We have lived productive lives, raised families of children who are excelling in life, and many of us served in the Armed Forces of the United States. For example, one member of my immediate neighborhood proudly flies his Marine Flag daily and served as an Officer and saw combat in Korea. Another member of my neighborhood was a Navy Officer and flew as a "back-seater" in an F-4 in Vietnam; and his Pilot during that service also lives a few miles from my neighborhood. As for me, I served nearly 6 years with a Regular Commission in the United States Air Force from 1964 - 1969, a fun time to be in the military.

A reading over the years of the letters to the editor of the various Whidbey Island Newspapers (an exercise I gladly refrain from participating) reveals excesses on the various sides of the OLFC issues; and reveals a clearcut lack of understanding and empathy. There is no attempt of which I am aware, where the Navy has taken a Leadership role in resolving this unfortunate split in the civilian community of Whidbey

Island and, if the Navy pursues any of its recommendations in regarding to increasing flights that utilize Whidbey OLF, that split will become greater for reasons discussed elsewhere in My Comments. In the preparation of the latest iteration of the EIS for Prowlers/Growlers, the Navy has engaged in deceit instead of balanced truth, manipulated data instead of obtaining and using actual data, and ignored the obvious on numerous occasions.

Is it beyond the realm of possibility, given the Navy's apparent attitude reflected in its incessant demands and support of policies that will destroy the ability of people who live in Coupeville or its environs, to enjoy life or even sell their properties and flee Whidbey Island, coupled with strong opposition to the Navy's policies and positions, that a group of Growler Pilots and Crew have been enjoying a "game" of occasionally zapping my home (and perhaps others, as well) with their Electronic Warfare equipment? My answer is "No." What would be the harm if it only involves those worthless persons (b) (6) who live in a big house with a big garden on the coastline, but under numerous flight paths of arrivals, departures, and FCLP's, yet near OLFC? If so, it is highly unlikely that they have been caught or disciplined. But there are damages that have been sustained and the Navy cannot say that there are not.

Of course, as of this date, I have no evidence other than circumstantial that the Navy, or that Navy personnel, took the action that has cost me several thousands of dollars. But I remain hopeful that someone with a conscience will provide such evidence in the near future. But I believe there are times and opportunities for such action to have been taken, as discussed elsewhere in My Comments.

To date, the losses I have sustained are as follows:

1. In 2002, I had installed two commercial-grade garage door openers that had remote controls. Both of the openers were "fried" on the same date, but neither of the remote controls were affected. Two new ones were installed on May 24, 2007 at a cost of $617.31. All of them utilized remote controls to send a signal to the opener to close or open.
2. An Onkyo TX-NR807 receiver, which cost $844.67, and which utilized Wi-Fi to communicate with a computer, was fried.
3. On June 13, 2008, an Apple Airport Extreme router was purchased at a cost of $179.99 to replace one that had been "fried".
4. On February 15, 2009, an HP laptop computer was purchased for (b) (6) at a cost of $729.99. It was fried a couple of years later. It utilized Wi-Fi. An Apple MacBook Pro was purchased at a cost of $1,621.74 on April 20, 2016, and still works.
5. On October 17, 2009, a new TV was purchased to replace one that suddenly stopped working, at a cost of $2518.48. Both utilized Wi-Fi.
6. A Logitech Harmony 900 Remote Control which transmitted signals to the Television and cost $305.80 on October 17, 2009, was "fried."
7. A third TIVO was purchased on March 17, 2015, to replace one that was fried. Its cost was $393.28. It utilized Wi-Fi.
8. On February 25, 2014, another Airport Extreme router was purchased to replace the one listed above as item 3, at a cost of $216.91.

9. In 2010, my wonderful 17"-screen Fujitsu LifeBook (Laptop) was "fried" suddenly. It cost $3,117. I replaced it on September 22, 2012, with a MacBook Pro Laptop at a cost of $2199. Between 2010 and September 2012, I used an HP Pavilion Elite 112y that cost $900. Both are/were Wi-Fi.
10. The total cost of the equipment that was fried was well over $10,000, excluding the equipment that could be said to be upgrades, but the cost of which was prompted by one of the several destructive episodes we have suffered.

(b) has kept actual, originals of all receipts mentioned for the 9 items enumerated, as well as for the whole house surge protector.

If asked, I will sign this document under Penalty of Perjury.

During the same period of time, none of my non-Wi-Fi equipment has failed.

Moreover, we have not experienced any episodes of destruction since early 2015. Maybe some Leadership or Supervision was asserted with a strong message? Maybe there is a new Commander that has made some changes? Or maybe some Navy records already have revealed some suspects? Maybe some discipline was meted. Whatever, I would be satisfied with a letter of apology, but I won't hold my breath.

If you wish to discuss this matter further, you may contact me, (b) (6)

I regret to say that there no longer is an Ivory Tower in my vision.

SECTION 6.

ALTERNATIVES TO OLF COUPEVILLE

Continued use of OLF Coupeville (hereafter OLFC) to conduct FCLP (Flight Carrier Landing Practice) operations, even at the current level of 6,100 FCLP operations per year, is incompatible with the civilian land development that already exists in the vicinity of OLFC. Many of the homes in the Civilian Communities surrounding OLFC and within the Coupeville City Limits have existed since the 1940's, and others have been constructed since then with no effective or honest effort on the part of the Navy, the County Government, or anyone else to warn builders and home buyers of the extent and intensity of Growler noise levels. That is important to understand. If an independent arbiter were to consider the relative equities involved between the conflicting parties of homeowners, the Navy, the County Government, and builders and realtors, it seems clear that, in the absence of effective warnings and disclosures, the weight of the relative equities favors the homeowners. The Navy can build an OLF facility elsewhere for the conduct of FCLP operations and where there will be no unwilling civilians, the Navy can keep its aircraft based at Ault Field and NAS Whidbey, and the Civilains who live near OLF can begin to enjoy the life they thought they had in their present homes.

Further, unless a decision is made to totally disregard the health dangers that presently exist for the civilians that live beneath the aircraft performing the FCLPs, the possibility of increasing FCLP operations by any amount should be a non-starter. Please be informed that there are no EA-18G Pilots or Crew, or families of either the Pilots or Crew who choose to live in any of the neighborhoods within the high decibel or otherwise dangerous zones beneath the FCLP flight paths. Indeed, even the military housing made available for those persons assigned to NAS Whidbey, and their families, are not within the flight paths for FCLP's occurring at NAS Whidbey. In other words, only Civilians, the vast majority of whom have no involvement or interaction or interdependence upon the Navy in any economic sense, live within the OLFC Danger Zones.

While the Navy has cynically avoided even mentioning the possibility or plausability of securing and constructing a new and state-of-the-art-appropriate OLF expressly for FCLP operations, that is a fundamental issue that Congress, The President, and the Secretary of Navy **should demand**, absent the adoption of a new, cooperative attitude by the Navy regarding that issue. That is to say, the insanity that has destroyed and is continuing to destroy the ability of Civilians to enjoy their lives to the fullest, as well as their wealth in the form of real estate investments, and that subjects those Civilians to more noise terror than is imaginable unless it is actually endured and experienced in person, should be terminated forthwith.

An acknowledged declaration of Vice Admiral Troy M. Shoemaker portrays the relative singularity of the Navy's attitude toward civilians who live beneath the flight tracks of FCLP operations at OLFC: It was filed as Document 48, on May 29, 2015, in the United States District Court for the Western District of Washington at Seattle, in Case No. 2:13-cv-01232-TSZ, and reads in part as follows: "denying electronic attack pilots the realistic training available at OLF Coupeville would mean asking them to flawlessly execute complex and dangerous landings on the deck of a moving aircraft carrier without having performed the same procedures in training ashore under circumstances that, as closely as possible, replicate landing on an actual aircraft carrier at sea. **There are alternatives to using OLF Coupeville, but none of those**

alternatives provide the flexibility required for the scheduling and execution of local . . . FCLPs, nor do they provide the most realistic training environment. . . ."

Both statements are conclusory in nature and offer no evidence in regard to OLFC. He mentions "alternatives" but without clarity of anything but the singular notion that "alternatives" is a four letter word. You cannot tell if he is thinking about existing landing facilities that are alternatives, or places where presently there are no landing facilities but state-of-the-art- landing facilities designed for FCLP cold be constructed. Moreover, there is nothing at OLFC that moves like an aircraft carrier moves. There are groves of tall Douglas fir trees, some taller than 100' located on private property to the north or runway 14 and to the south of runway 32. There is the main highway of Whidbey Island, State Highway 20, that is adjacent to OLFC on the east side. On the east side of the runways, there is another road, Keystone Hill Road. There is Patmore Drive that is adjacent to OLFC on the north. and west of OLFC. Thousands of cars per day travel that highway and roads. There is a sports facility close by that is utilized for childrens' sports events, that is the location of one of the POI's for the DEIS. I could go on, but my point seems clear, when I say that if the Navy's intransigence regarding taking a long look at an alternative location is terminated by common sense or by, for example, a new Secretary of the Navy, or of the Department of Defense, or by our new President of the uUnited States, the inaccuracy of Admiral Shoemakers claims could shine even more brightly.

If, on Government land, reachable by flying in an easterly direction in an EA-18G in less than 10 minutes, a state-of-the-art Outlying Landing Facility is constructed, it could be constructed with design elements that exist nowhere on earth, including OLFC. It could be constructed in a flat area of land having no trees, having no roads, with distracting car lights at night, surrounding the runways, having no civilians bearing the burden of living in the vicinity, and having no innocent children playing sports with unprotected ears, or with pregnant mothers unable to protect the developing ears of their fetuses, beneath FCLP flight tracks. Moreover, FCLP's could be scheduled without consideration being given to conflicting events being held in Coupeville simultaneously with the the timing and conduct of FCLP's. And no little town in America seems to have more events and celebrations or art shows throughout the year than Coupeville, in no small part because Tourism goes to the heart of Coupeville's economy. And Coupeville's way of life, which is far different from life at Ault Field or Oak Harbor, has existed long before the Navy first landed on Whidbey Island. Coupeville was established in 1851, is the second oldest city in Washington, and has been the County Seat since 1881. The Navy's bullying tactics regarding the use of OLFC, originally intended only as a temporary facility, threatens the vitality of Coupeville's economy and its Tourist-based foundation. How many Tourists do you know who wish to spend a week or two or a day or two listening to the roar overhead of Growlers flying low-level FCLP's?

It is not difficult to envision a new OLF that would provide a far more realistic training environment than presently exist at OLFC, and continue permit all the U. S. Growlers to be based at NAS Whidbey. Presently, more training involving flying occurs away from Island County than that which occurs either at Ault Field or OLCF. Take a look at the flight tracks for arrivals and departures from Ault Field, and you will see that some 53,100 such flights occur throughout the year that do not involve FCLP's (see Table 3.1-3). That doesn't include any projections once more Growlers arrive at NAS Whidbey.

Parenthetically, I hope the Navy knows what it is doing basing all the Growlers owned by the USA at one location (Ault Field) in an unprotected Harbor facing West.

Admiral Shoemaker, in his Declaration, also takes the reader through the sequence of events essential to a successful landing on an aircraft carrier. He states: "Landing a tactical aircraft on a moving aircraft carrier at sea poses enormous challenges for even the Navy's most experienced aviators. Aviators must perform a series of maneuvers in a very precise sequence, at specific altitudes, speeds, and power settings, which are very different from a conventional landing. To land on an aircraft carrier, aviators first fly 180 degree descending turns in an oblong "racetrack" pattern over the aircraft carrier. They enter the racetrack flight pattern at 800 feet above seal level and then descend to 600 feet. Aviators then turn and descend at 100-200 feet per minute to arrive at the start point of the final descent. During the final seconds of the landing, aviators make constant power corrections to achieve the exact descent angle, alignment and airspeed so that the aircraft arresting hook touches down in a precise location on an aircraft carrier runway that is moving away from them and can be pitching up and down while also rolling side to side. The aircraft arresting hook then catches an arresting wire, stopping the aircraft, which is moving at over 100 miles per hour, in less than 300 feet. When the aircraft touches the flight deck, aviators actually add power (rather than braking) so that the aircraft can immediately take off again if the aircraft's arresting hook misses the arresting wire. . ."

"Aviators perform this entire complex landing sequence while maintaining a 45 to 60 second interval between aircraft.

The requirements for flying at a precise descent angle, and with a proper bearing alignment and airspeed is the same requirement commercial and private pilots numbering into the thousands of pilots encounter and demonstrate while landing commercial and private airplanes safely at commercial and private airports in inclement and foggy conditions, where you cannot even see the airport until you have descended to a level below the occluded visibility level. There are avionic instruments that simplify the process greatly, but it is true that landing in a fashion that includes a precise spot, as is the case with landing on an aircraft carrier, isn't usually essential in the commercial and private flying world. Further, the Navy's safety record for aviators landing on aircraft carriers is quite high and good, and I would point out that only the Growlers use OLFC. OLFC isn't essential to F-18's and other myriad aircraft that land on carrier decks. OLFC is "essential" only because the Navy has made it so, at least in the collective Navy mind, where only one view is voiced - that of the highest ranking Commander. At least publicly.

Admiral Shoemaker's Declaration also contains a narrative about nighttime landings: "Nighttime carrier landings are even more challenging than daytime landings. At night, aviators lack the visual cues they rely on during daytime landings. At night it is often impossible to discern the horizon or the ocean due to the complete lack of ambient lighting out at sea. The inability to make a determination of relative motion can result can result in vertigo and confusion. Aviators must rely heavily on their flight instruments and their training. Thus, it is critical to continue this training in an ideal location such as OLF Coupeville, where ambient lighting is minimal, thus replicating the demanding carrier environment as closely as possible. . ."

With the main Whidbey Island highway, and other roads virtually surrounding OLFC, along with the 400 or so homes at the runway 32 end of OLFC and hundreds of other homes and even a well-lit terminal and home base of Whidbey Island Transit, a taxpayer-funded Island-wide bus service center and maintenance center for dozens and dozens of buses of all different sizes, it is a stretch to say that ambient lighting is minimal. It is if you compare it to downtown Seattle at night, but it isn't if you compare it to a carrier at sea.

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Admiral Shoemaker's narrative clearly emphasizes the complexity and inherent dangers of executing a perfect landing of an airplane at a particular spot on an aircraft carrier, as well as the desirability of ingraining the entire process of such landing deeply within the reflexive parts of an aviators mindset that can only come from repetitive practicing. I get that. I live it, at least vicariously by living beneath flight tracks of FCLP's at OLFC. And I get that a Growler weighs in the neighborhood of about 48,000 pounds and has a top speed far in excess of the speed of sound, and I never have heard in sonic boom on Whidbey Island. What I don't get is that Admiral Shoemaker flatly ignores the effects of living with 6,100 FCLP operations per year upon my body, my mind, my longevity, my enjoyment of life, my inability to enjoy my retirement and on and on. No one in the Navy, including Admiral Shoemaker, appears to give a hoot about me or my wife or my neighbors. Instead, all the Navy personnel below him in rank all seem to support the same biased, manipulated documentation that exists in the current and in former DEIS's regarding first the Prowler and now the Growler. Moreover, their DEIS, which is not certified under penalty of perjury, doesn't rely on actual and factual measurements (that are verified by an independent and reliable contractor or verified by civilians that are impacted by such measurements, as with available evidence of verification in the United States Air Force), but rahter solely upon computer projections that utilize software that is capable of manipulation as is the case with virtually all software. If is is written by a human, it can be changed or "fixed" by a human). My position is that the Navy is not honorable in its zeal to foist upon civilians levels of noise that are worse than the noise levels now costing the Japanese Government lots of money because of military aircraft noise levels that are intolerable in that venue. In that venue, there are a couple of articles, one very recently, that seem pertinent and may even shift more and more FCLP's from Japan toward Whidbey Island and OLFC. Here are some of those articles:

"Japan gov't ordered to pay more in damages over U.S. airbase noise

"TOKYO, Dec. 1 (Xinhua) -- A high court on Thursday ordered the Japanese government to pay some 950 million yen (8.3 million U.S. dollars) in damages to a number of residents near the U.S. Futenma air base in Okinawa prefecture for aircraft noise.

The Fukuoka High Court's Naha branch upheld a former district court ruling ordering the central government to pay damages but raised the amount of payment from around 754 million (6.6 million U.S. dollars) previously to some 950 million yen.

Some 2,200 residents filed the suit in 2012 with the Okinawa branch of the Naha District Court against the government, complaining of emotional distress and negative impacts on the health caused by the aircraft noise and demanded 1 billion yen in compensation.

The district court ruled in June last year that the government should pay a total of some 754 million yen in damages to around 2,100 of the plaintiffs. Both the plaintiffs and the government appealed the ruling.

A separate lawsuit was filed by 3,395 residents who were not plaintiffs of the previous suit. The district court made a ruling last month and ordered the central government to pay around 2.46 billion yen in damages to the residents, though rejecting their demand for a halt to flights at the base.

The Futenma air base is located in downtown Ginowan city, Okinawa Prefecture, surrounded by residential areas. Local residents have been concerned over flights at the air base causing noise, air pollution and endangering public safety, especially after the crash of a Marine Corps CH-53D transport helicopter on the campus of Okinawa International University in 2004 .

The Japanese and U.S. governments have been seeking to move the Futenma base from Ginowan to the less-populated Henoko coastal area of Nago. The people of Okinawa, however, demand the Futenma base to be relocated outside the prefecture.

Okinawa hosts some 75 percent of U.S. bases in Japan while accounting for only 0.6 percent of the country's total land mass.' [Emphasis added.] (Source: Xinhua 2016-12-01 22:22:19; [news.xinhuanet.com/english/2016-12/01/c_135874026.htm])"

Earlier in 2015, the Japanese Press wrote this news report: "YAMAGUCHI – The Yamaguchi District Court on Thursday **ordered the state to pay noise pollution damages to residents around a U.S. air base** in Yamaguchi Prefecture but rejected calls to suspend joint flights.
The decision by the court's Iwakuni branch was the first noise ruling concerning Marine Corps Air Station Iwakuni, which is jointly used by the U.S. military and the Self-Defense Forces.
A total of 654 residents filed the suit in 2009, demanding roughly ¥1.8 billion ($15 million) in compensation for past noise as well as the suspension of some flights.
Presiding Judge Hiroshi Mitsuoka said the court recognized that the plaintiffs "suffered psychologically and sustained health damage" because their ability to hold conversations and sleep was disrupted by noise from the base.
But the court limited the scope of compensation to past damage, deeming there was insufficient data to calculate future damages.
It also turned down the plaintiffs' demands to cancel the plan to transfer U.S. carrier-borne fighter jets to Iwakuni from Naval Air Facility Atsugi, in Kanagawa Prefecture, in 2017 and to impose a total flight ban on the MV-22 Osprey tilt-rotor transport aircraft. . .
The top government spokesman also said the state was working to alleviate the burden of hosting U.S. bases while maintaining their deterrent power.
Itsuo Yoshikawa, the plaintiffs' lead lawyer, said the ruling was a significant first step toward eliminating noise at the base but added "it was by no means satisfying."
Mitsunori Yoshioka, a 69-year-old plaintiff, said, "It wouldn't be a fundamental resolution unless the flights of military aircraft are suspended."
The plaintiffs live in an area where noise levels register 75 or higher on the Weighted Equivalent Continuous Perceived Noise Level index, an international environmental measurement.
The figures should be at 70 or lower in residential areas and at 75 or lower in commercial and industrial districts under Japanese government standards. . . .
The Iwakuni case has attracted public attention because the base is expected to host 59 fighter jets from Atsugi air base as part of a road map for the realignment of U.S. military forces in Japan, which was agreed to by Tokyo and Washington in May 2006.
The Iwakuni base is expected to become the largest U.S. base in East Asia through the realignment.
Thursday's ruling is perceived by some as a retreat from the Yokohama District Court ruling in May last year, which ordered the suspension of SDF flights at Atsugi air base, as well as the Tokyo High Court ruling in July that upheld it.
The Yokohama court ruling was the first to order damages payments for future noise until the end of 2016, while taking into account the fighter jets from Atsugi that are planned be relocated to Iwakuni." [Emphasis added.] (http://www.japantimes.co.jp/news/2015/10/15/national/crime-legal/court-orders-state-pay-damages-noise-iwakuni-base-flights-not-banned/#.WJN_ZbGZNmA).

It is only a question of time before a sufficient amount of evidence becomes available that similar lawsuits surely are bound to become a fact of life on Whidbey Island. When the Navy loses confidence of people like me, who have a history of excellent and productive military service and who are not looking for a quick buck, there is a serious problem. Ignoring it will not work any longer. Neither will it go away, short of finding an OLF and relocating the burden that is living near OLFC to that OLF, which could be designed to be and could become an actual,

existing ideal OLF. While keeping however many Growlers the Navy wishes to keep at NAS Whidbey and Ault Field.

The following are some of the "Alternatives" that exist or could exist, that would alleviate the otherworldly plans the Navy has for foisting dangerously high and debilitating levels of noise on Civilians by adhering to its "Nowhere but OLFC" policy:

1. FCLP Operations Carriers. Thinking "outside the box" for a moment, there is an alternative to OLFC that, in my opinion is worthy of consideration. It is not difficult to reach the conclusion that the OLFC has a limited future life for Navy FLCP operations, the most burdensome aspect of Naval Aviation when the noise generated by those operations is foisted upon a civilian community that has virtually zero interrelationships with the Navy and that receive virtually zero benefit from the Navy other than the benefits to our country of having Armed Forces. Just as it would be unreasonable for civilians who live close to a gunnery range to be subject to being victims of collateral damage from gunnery practice, it also is unreasonable to expect civilians who live below FCLP operation flight tracks to be subject to becoming collateral damage victims of hearing loss, organ damage or destruction, adverse cognitive consequences, and other adverse physiological adverse impacts. Or for fetuses conceived and developed in wombs that happen to live below those flight tracks to be subjected to possible life-long consequences. Expecting a new and ideal FCLP landing strip or two seems like a small step instead of a large one when considering that the cost of a new landing strip might be less than the cost of a single EA-18G Growler.

Former Navy Pilots, who have retired on Whidbey Island, confirm and affirm that the best possible practice landing facility to enhance a pilots ability to execute a safe landing on an aircraft carrier is an aircraft carrier. That is because it is perfectly duplicates landing on an aircraft carrier, unlike a landing strip like OLFC that is surrounded by homes, roads, thousands of mature Douglas Fir Trees, and is 200 feet above sea level and surrounded by a highway and roads. Even as far back as during World War II, the Navy actually thought "outside the box," during a time when land was far more under-developed and inhabited than it is today. Nonetheless, to facilitate the training of pilots for take-offs and landings on aircraft carriers during World War II, the Navy purchased two Great Lakes side-wheel paddle steamers and converted them into freshwater aircraft carrier training ships. Both vessels lacked hangar decks, elevators, or armaments, to reduce costs. Together, the ***Sable and Wolverine*** were used to train **17,820** pilots (Wikipedia, United States Aircraft Carriers). Today, there are at least three actual aircraft carriers that have been de-commissioned and are in reserve, undergoing de-fueling, or on hold for donation. They are the **Kitty Hawk**, the **John F. Kennedy** (another John F. Kennedy carrier is under construction) and the **Enterprise**, and all are owned by the Navy. In addition, several others presently are residing at museums , but their condition is unknown, at least to me. If two of the three carriers listed above or other existing and available carriers, or other vessels, were to be appropriately outfitted and utilized for the limited purpose of creating a carrier-type facility strictly limited to FCLP operations, that arguably would resolve the necessity for OLFC and would resolve the attendant issues and problems accompanying continued use of OLFC that likely will continue to grow exponentially, if Alternative 1, 2, or 3 is selected by the Navy as the future for OLFC. Yet, the economic benefit of NAS Whidbey to the small city of Oak Harbor would continue unabated.

Further, commercial development of the OLFC facility would be a boon to the economy of Whidbey Island, same as in other areas where closure of military bases has resulted in commercial development around the former bases (google Mather AFB and McClellan AFB).

Moreover, those reclaimed, refurbished, or refitted carriers could move or be towed to temporary locations in safe environments on the East Coast and on the West Coast of the United States as needs arise. Mobility, in terms of moving a limited-use carrier to a climate that more likely matches the then existing "crisis" area, or that is geographically closer to such an area, would seem to be a far better scenario than the present system or projected system to do all FCLP's at OLFC, save for 20 percent, maybe.

Capture, if you will, a momentary vision of one such carrier in the middle of the Bay Area of California, or off the coast of Santa Barbara, California, or San Diego, or Seattle, or the Puget Sound, and a day in which a hundred or so FCLP operations are executed. Would that be a tourist attraction? Would it possibly stimulate interest in Naval Aviation? Would it have beneficial PR attributes for the Navy? Would it be popular with civilians who live in the vicinity of OLFC? I think the answer to each of those questions is obvious. One final question: If it was good enough to do during a national crisis such as WWII, why could it not be good enough for today? I can't say what the cost would be, but as an alternative to a new OLFC landing strip to replace OLFC, the cost may well be a wise investment once consequences of living below Growler noise caused by FCLP operations become widely known and acknowledged by the courts.

2. OLF's on Indian Lands. One of the features of land in the Western part of the United States is the existence of Indian Reservations. There are many in both Oregon and Washington. Indian Tribes have the ability to control development or no-development on their lands, and in many respects exercise sovereign authority over the lands, including state-level taxation. In addition, many Tribes enter into construction contracts even to build airports. Constructing an OLF on Indian Lands theoretically could give the Navy contractual rights to build and use an OLF or two according to the terms negotiated in the contract. One term, in favor of an Indian Tribe, might well be a new school or some new housing 10 or so miles away from the OLF but still on the reservation. If certain lands on a reservation have no residents within even say a 40 dB DNL noise contour, maybe the Navy could make all the noise it wants and without hiring people to "man" complaint lines. Far fetched idea? I don't think so. It depends in part on location.

I point out that there are coastal reservations and there are reservations in the desert. Both seem to have comparative advantages.

It also depends upon the Navy reaching the reasonable conclusion that the "old" way of forcing its will upon a growing and unwilling public, as is the case in the communities surrounding the OLFC, and manipulating the data in a way that ultimately will come back to haunt the Navy, is over and done. New OLF's for both the "EA's" as well as the "F's" will become a reality. That can and should happen now, not next decade.

3. New OLF on Uninhabited Federal Lands. The Navy and the United States own thousands of acres of land in the Western states, including Washington, upon which multiple landing strips could be constructed and FCLP's could be practiced and performed with virtually no civilians beneath the flight paths, and future civilian development near flight paths of a new

FCLP facility could be prohibited, as it should have been but is now too late for OLFC. Also, please note that the infrastructure required would not include many buildings. Indeed, at the Whidbey OLF, there are very few buildings other than the flight control approach radar, and a few other very basic-looking buildings. EA-18G's can be moved from one location to another very quickly. Indeed, low level flying training and some Electronic Warfare training for Growlers assigned to NAS Whidbey already is currently conducted in Eastern Washington and Oregon, where there are far more rodents than people or structures of people, including towns, hospitals, schools, and homes.

it should be noted that the cost of a single Growler is in the vicinity of $100,000,000 dollars. The cost of constructing a new and ideal FCLP landing strip or two on Government Lands could and should be less than that cost for one Growler, and likely would be in an area with no civilians living below the flight paths. It is clearly too late for that ideal landing strip to be OLFC unless the Navy condemned and purchased all homes on Whidbey Island below the flight paths, or within the noise contours as drawn and shown in the DEIS.

4. NEW FCLP-Only Landing Strips. The Navy could add two additional landing strips at NAS Whidbey, on Navy-owned lands, and by way of eminent domain, and could buy or "take" through eminent domain the relatively few privately owned homes that may be situated beneath new FCLP flight paths. Noise issues are lessened by distance and a suitable distance could be prescribed in new flight path tracks that would tend to minimize noise-related issues. Further, those flight tracks could be designed so that the vast majority of the flight paths would occur over water.

5. Buying Land on an Uninhabited Island in the Pacific Northwest. The Navy could be compelled to reject their absurd judgment that it is fair and reasonable, and not a gross abuse of power, to subject one inhabited island in America to the horrific, indeed sometimes terrifying, noise generated by their EA-18G's. To increase from 6,100 to 35,100 the number of FCLP operations proposed to be forced upon the civilians living near OLFC and the community of Coupeville likely could be determined to be an unconstitutional abuse of power and a denial of procedural and substantive due process required by the United States Constitution. The cavalier attitude of the Navy reflected by the DEIS could become the cornerstone of a legal effort making those allegations. Finding another location for OLF's is a reasonable solution.

Increasing the number of FCLP's performed at OLFC in the manner proposed in the DEIS would not only subject residents who live beneath the Flight Tracks to unimagined health risks, auditory and non-auditory alike, and would devastate wealth of many Americans who already have put in their time as loyal American citizens and have worked all their productive lives. That includes me. My home , completed in 2002, is valued at over $2,000,000, based upon the USAA Insurance Replacement Appraisal, the waterfront Lot value as assessed by the county, and the Garden and View.

The Independent study of the situation at Luke AFB, regarding the F-35's, is instructive and frightening, to me. Pertinent are the following portions I have quoted:

"The development potential of approximately 33,000 acres in the West Valley communities surrounding Luke AFB has been constrained by these [government regulations] (Luke Forward Campaign 2009). Some incompatible development occurred before these restrictions took effect. . . ."

"**The Impact of Aircraft Noise on Property Values.** The negative effect of airport/aircraft noise on property values is a well-researched/documented issue. There are dozens of published studies on the topic, all of which come to the conclusion that property under or nearby the flight corridors of airports experiences diminution in market value."

"One of the most important studies was conducted for the Federal Aviation Administration in 1994. The results indicated a consistent negative impact of aircraft noise on residential property values. For the area surrounding the Los Angeles International Airport (LAX), in the case of moderately-priced homes, it found a 1.1 percent loss in market values per dBA above a "quiet threshold." For the John F. Kennedy Airport (JFK) in New York, the loss in market value for moderately-priced homes was estimated at 0.5 percent per dBA. (Bell 2001).

Studies of the environs of LAX, Ontario, and John Wayne airports in southern California estimated the negative impact of values of single-family residences ranging from 15 to 43 percent – averaging a 27 percent loss in market value. The studies also included analysis of the impact on non-residential property and found significant negative effects on commercial space. A 2004 study that synthesized the results from 33 studies of airports in Canada and the United States over the 1969-1997 period estimated a range for the loss in residential property values of 0.5 to 0.7 percent per dB for levels up to 75 dB. The study indicated that the noise discount would be substantially higher for areas that are affected by noise levels higher than 75 dB (Nelson 2004). These statistics imply that the value of a moderately-priced home located within the 65 DNL noise contour would be about 9 percent lower than an equivalent home located in a neighborhood not affected by aircraft noise."

"The analyses of the Southern California airports found more severe effects of aircraft noise on property values. The 1.1 percent loss in value per dB estimate from the LAX study would imply that the loss in value of a home within the 65 DNL contour would be almost twice as large at about 17 percent."

"Negative Economic Effects of Existing Noise Levels
Impact on Property Values"

"A substantial portion of land zoned for residential use in El Mirage, and some areas zoned for residential use in Surprise and Buckeye are located within the JLUS 65 DNL. The values of existing homes in these areas are substantially lower than they would otherwise because of their location in the vicinity of Luke AFB and subject to high levels of aircraft noise. Based upon the results of the studies cited above, estimates of the magnitude of lost value would range from 9 – 17 percent. In dollar terms, this would mean that the value of a home located within the 65 DNL noise contour otherwise valued at $150,000 would be worth $14,000 to $26,000 less than an equivalent home without aircraft noise."

"Negative Economic Effects of the F-35's Higher Noise Levels
Impacts on Property Values"

"Evidence from testing indicates that the noise levels associated with the F-35 compared with the F-16 are anywhere from about 10 to 20+ dB higher. Using the lower bound of an increase of 10 dB would imply a loss in value in the 6 - 11 percent range for homes in the areas affected by the higher noise levels, while a 20 dB increase would imply losses in value in the 12 - 22 percent range. Losses of these magnitudes would be equivalent to dollar losses of $9,000 to $33,000 for a $150,000 home."

"Because of the higher noise levels associated with the F-35, the area significantly impacted by aircraft noise will be much larger than was the case with the F-16, and more residential areas with many more homes will be affected. As described in the previous section, virtually all of El Mirage, Youngtown and substantial areas in Sun City, Surprise, Litchfield Park, Goodyear, Buckeye, and unincorporated Maricopa County will become subject to aircraft noise levels high enough to affect property values."

"Thus, the higher noise levels would result in declines in the market value of residential properties of hundreds of millions of dollars in these West Valley communities. The case of El Mirage offers the clearest example, since virtually all of its residential areas would be covered by the F-35's 65 DNL noise contour. Residential property owners in that city alone could suffer overall losses in the $200 million range, based on the mid-point of the percentage losses in market values cited above." (archive.azcentral.com/ic/community/pdf/luke_air_force_base-noise-study-0414pdf), An Evaluation of the Potential Loss in West Valley Home Values from Locating F-35 at Luke Air Force Base, Timothy D. Hogan, Ph.D.).

An "Evaluation" of the consequences upon property values at OLFC would seem to be in order, if the Navy seriously thinks the best thing to do in view of the Navy's short-sighted planning (at least the publicly disclosed portion of Navy planning) is to burden all families who live in Coupeville and its environs by imposing an intolerable level of FCLP noise upon civilians who have no economic benefit coming from the Navy See Sec. 3 Coupeville & Environs: A Quality of Life at Risk of Devastation by the United States Navy; and Sec 4, DEIS' Economic Benefits to Coupeville and its Environs Means Negative Impact Burdens, My Comments).

Navy expectations that it is ok to subject living Americans to the extreme Noise-Terror that would accompany living below flight tracks of Growlers executing FCLP's increased from present levels by up to 575 percent is beyond realism. There are too many reasonable people in Washington and in Washington D. C. to permit that to continue for the next 40 years, the expected life of an EA18-G. It is time for some conscience to reign in the Navy. It is not clear that the Navy has one.

I will make this offer to Growler Pilots and their EA Crewmate. You are welcome to spend an afternoon at my home, on a busy FCLP day at OLFC. You may spend the afternoon in my garden, and enjoy the view and the beauty; and try to enjoy it at the same time Growlers are performing; and my wife will be as gracious as any host you ever have encountered. You don't need to bring hearing protection. The Navy hasn't issued a warning for any hearing or other health dangers.

Message to the Navy: I don't believe anyone will show up or stay if they do show up on a busy FCLP day.

SECTION 7

DEIS BIAS: BENEFITS FROM NAS WHIDBEY

The DEIS, at Section 4.2.5. states that "The most appropriate means of differentiating between the impacts caused by the different alternatives and scenarios is by comparing the total estimated population within the DNL noise contours between the alternatives." While it is true that it is a way of differentiation, that conclusion that it is the "most appropriate" is belied even by just a little bit of honest analysis that cause that "most appropriate" claim to become superficial and inherently biased. It neither recognizes the basic, fundamental differences between two reasonable and decent cities. Their histories and present economic structures could not be more stark nor different (see Section 3, Coupeville & Environs: A Quality of Life at Risk of Devastation by the United States Navy?; and see Section 4, DEIS' Economic Benefits to Coupeville & Environs Means Negative Impact Burdens, My Comments). Coupeville's right to continue to exist as it has since 1851 (it is the second oldest town or city in Washington) is required by NEPA to be protected, not destroyed. Perhaps, it is merely reflective of a view that entails an Admiral up the ranks from NAS Whidbey, who already has made up his mind, and demands those below him/her support this conclusory statement as a way to implement his/her favorite proposal. Further, it is clear that actions by the federal government, which the Navy obviously is a part of, is subject to the limitations expressed in the United States Constitution. It is a fundamental right, under our Constitution, that actions of the federal government that affect and essentially classify citizens of Coupeville and its Environs in a discriminatory manner will be held to violate the Due Process Clause of the Fifth Amendment to the United States Constitution. A decision based upon the assumption that it is "most appropriate" to stick-it-to Coupeville and its Environs because there are fewer residents there than at NAS Whidbey and Oak Harbor, in my opinion, would be determined by a Federal Court to be an action made in violation of the Fifth Amendment.

That highly offensive and inaccurate statement, contained in the DEIS, is nothing more than a conclusion unsupported either by evidence, data, or rational argument. It is devoid of value as a defensible decision. One major basis of differentiation, that is not reflected in the DEIS, is as to the relative level or type of interaction between the Navy and the area around NAS Whidbey, compared to the interaction between the Navy and Coupeville and its Environs. If you consider that the NAS Whidbey Complex in Oak Harbor includes approximately 7,090 military personnel and their families, and employs about 2500 civilians, most of which have families, and houses vastly more of both groups, it follows that there is a strong, interdependent interrelationship between the Navy and Oak Harbor. Further, for the past decade (I didn't check back beyond that), fully 50% of the students in Oak Harbor Public Schools have parents who are stationed at NAS Whidbey, or who otherwise work at NAS Whidbey. Those two groups of people support and "feed" many of the private businesses that provide amenities and services in Oak Harbor. Even in the town of Anacortes, which is not even in Island County (both Oak Harbor, Ault Field, Coupeville, and the OLFC are in Island County), the figure for students in the Anacortes Public Schools from those two categories of "Navy-related people" exceeds 10 %. In Coupeville, it is less than 10 %, and has been declining. Military personnel by and large choose not to live in Coupeville. Coupeville is not a Navy town. Oak Harbor is a Navy town. The obvious and primary source of employment among Oak Harbor residents is NAS Whidbey. The economic value or benefit of the Navy to Oak Harbor is huge. In Coupeville, the economy, town's ambiance, and attractions are not Navy-based. It is Tourist based. It is small-agriculture-based. It is locally-owned restaurants-based. It is locally-owned shops-based. The two towns are hugely different. I'm not saying that one is superior to the other. Some people even like both. For me, I am a Coupevillian by choice of lifestyle. Coupeville is a great town for retirement people. I am far more comfortable in Coupeville. I even obey the slow

speed limits. But the Navy is seeking to destroy all of that apparently without even considering the possibilty of the adverse impacts of its proposals. The DEIS also avoids any analysis of the unique nature of the economy of Coupeville, or its attractions to so many Tourists who definitely won't want to come to Coupeville and be forced to listen to Growler noise of near or well over 120 decibels per FCLP flight tracts that are several miles wide and about 4 times as long, flying as loud as a tornado. 36,100 times per year. Round after round the flight track. Except Coupeville could get its economy knocked out before too many rounds. But that wouldn't stop the Navy.

In any event, contrasted with Oak Harbor, where there is major economic dependence upon NAS Whidbey, Coupeville derives scant value or benefit from the Navy. Thus, to say that population is the best way to compare the impact of the proposals is to compare population is preposterous. Indeed, it is to compare apples to dirt. It also would be a way to impose the largest noise burden (it absolutely is not a benefit) of the proposals, represented by Scenario A or Scenario B of each of Alternatives 1, 2, or 3, upon the smallest community and the only one of the two communities that is opposed to all Scenarios in all three of the numbered proposals. The Mayor of Oak Harbor just announced publicly a barn storming trip of city officials to Washington D.C. to lobby in favor of more Growlers for NAS Whiidbey. For Oak Harbor, that means more jobs. You won't find city officials from Coupeville joining the Oak Harbor delegation. Coupeville is quoted in the Oak Harbor newspaper as opposing any more Growlers at OLFC. Oak Harbor would gladly accept more Growlers, but of course, the fly in the pie is that Ault Field cannot handle the additional FCLP operations, so the Navy, with their short-sighted planning, is willing to accept all the Growlers owned by the Navy to be Ault Field-based, but wants to increase the number of FCLP's at OLFC from the current 6,100 FCLP's (an already intolerable and dangerous level, up to an obscene 35,100 FCLP's.

Most of the Citizens who live near OLFC and in Coupeville absolutely do not want that to impact their lives and their wealth. It will damage our hearing health, and would result in higher risks in other, vital areas of health, notwithstanding Navy assurances to the contrary. Those "assurances" do not withstand close scrutiny and are ill-advised and inaccurate. There are numerous studies that reach conclusions contrary to the Navy's assurances. Further, the Navy's decision regarding OLFC likely will seriously degrade and depress our home values more than now. It would be a disaster. The Navy clearly needs to find another OLF location that will not torture Civilians with their unwanted noise. Think of it - the Navy is projecting to increase FCLP operations at OLFC from 6,100 FCLP's per year up to 35,100 per year. That would be tantamount to the Navy Declaring a Noise War against the Civilians who primarily live near OLFC, as well as Economic War against Coupeville. We deserve more consideration, consistent with limitations upon the Federal Government and the United States Navy by the Federal Constitution and Federal Laws.

The DEIS contains a Table indicating both the estimated geographic acres and the estimated population that resides within the contour ranges of 65-70 dB DNL, 70 to 75 dB DNL, and higher than 75 db DNL, and makes the contradistinction between the acreage and population of Ault Field and OLFC. This is another reason why the DEIS is either purposely slanting the data to support the obvious preference of the Navy for a 20%-80% split of FCLP's for Ault Field getting 20% and OLFC getting 80%. The contour lines throughout the DEIS are drawn for Ault Field and for OLFC using two different methods. For Ault Field there are lobes drawn from the end of each Runway extending out as far as 10 miles from the "Runway endpoints. The extra length of the lobes on the contours is said to be "primarily due to the Growler on the GCA patterns [ground controlled landing approach] where the aircraft generally descends on a 3-degree glide slope through the 3,000 feet level" 10 miles from the runway. Similar lines are not included for the OLFC contours, notwithstanding that hundreds of Growler flights are executed in a direction that includes flying directly over OLFC that represent flights from Ault Field (at a 300-450 knot speed (my observation) preliminary to entering the closed-loop FCLP

tracks at OLFC, or that represent flights exiting FCLP closed-loop patterns at OLFC and departing from OLFC (like directly over my home) and ascending to one of all sorts of levels and invariably at a much higher speed than the speed of a closed loop, some of which may even include Growlers utilizing afterburners. These flights, typically, would be return trips to Ault Field for fuel, food, or rest between sessions. If there are 5 Growlers involved in FCLP operations and flying in the same session, each would execute some number of closed loops flights involving a Touch and a Go on each loop (unless a "touch" is waived off because of one or more of several factors involving positioning, wind, speed, altitude etc.). The point, however, is that each Growler will have an arrival to and a departure from OLFC for each session. Those flights are over land that are not reflected in the contours drawn for OLFC. Typically, an 8 - 10 hour FCLP schedule may include 4 or 5 sessions. Doing the math will show that for one flying day at OLFC involving five Growlers and five sessions, there will be 25 arrivals and 25 departures that are not reflected on any Contours for OLFC, but are reflected on the Contours for Ault Field. This is but one example of many that tend to show that the DEIS, indeed each DEIS that I have looked at since 2005, understates the predictable noise at OLFC compared to Ault Field. That is only one reason why the DEIS should be rejected as a serious or fair description or prediction of noise preferred to be foisted unilaterally upon the communities surrounding OLFC.

Moreover, Table 3.1-3, entitled Annual Modeled Affected Environment Operations At Ault Field and OLF[C]" is more evidence of the slanted bias of the DEIS in favor of unilaterally imposing noise upon the the unwilling communities surrounding OLFC. That Table is attached for your convenience at the end of this Section. Notice that for Ault Field, under presently existing experiences, the number of FCLP's performed at Ault Field is 14,700 and for OLFC is 6,100. Then, if you look at the numbers for "Other Operations" the number for Growlers at Ault Field is 53,100 and for OLFC is a big fat zero. Is that an accurate depiction of facts, or are those "alternative facts"? The DEIS contains in Section 3.1.2 a discussion of why a different metric should not be used in describing the extent of operations at Ault Field and at OLFC, but does not defend the exclusion from the OLFC Contours the full measure of noise emanating from flights over OLFC at relatively low altitudes when both are in a high noise, powered mode of flight that are departures from or arrivals at Ault Field. To my way of thinking, noise is noise wherever it originates. The DEIS considers, for contour drawing purposes, noise generated by Growlers arriving at Ault Field that departed a NAS other than Ault Field, and considers noise generated by flights departing Ault Field but doesn't consider noise at OLFC as including noise that is generated by Growlers that fly directly over the OLFC on an arrival at or departure from Ault Field not involving FCLP operations.. As a result, the flight operations stated in Table 3.1-3 are an inaccurate comparison of flights that generate noise in the Contours drawn and presented in the DEIS. That is merely another of the many negative biases contained in and reflected by the DEIS, which speaks for the Navy at NAS Whidbey, not for OLFC. Footnote 3, accompanying Table 3.1-3, is interesting and it may be seen on page 3-14 of Volume 1 of the DEIS, and reads as follows:
"3 The term "Other Operations" includes Touches-and-Goes, Depart and Re-enter, Ground Controlled Approaches, and Carrier Controlled Approaches. . . ."

Maybe that statement should be revised to say that Touches and Goes are included/counted for both Ault Field and for OLFC, but all other overflights and arrivals and departures at or from OLFC are not included for OLFC, but are, of course, included in the "facts" attendant to the drawing of Contours for Ault Field. Thus, that language supports the view that the contours show more people would be impacted in Oak Harbor than in Coupeville. The degree is the issue. In the DEIS, the degree is affected directly but not fairly, in my opinion.

Figure 3.1-3 is entitled Aircraft Arrival and Departure Flight Tracks at NAS Whidbey Island Complex and shows about 10 separate arrival flight tracks for aircraft, including Growlers, arriving at Ault Field on flights not involving FCLP operations at OLFC. Those are among the

flights that are considered in the DEIS in the drawing of Contours for Ault Field and tabulated for multiple purposes including establishing DNL figures, but not considered for any purpose in tabulating figures or drawing Contours for OLFC. Nonetheless, those flight arrivals in fact generate a high level of noise in the vicinity of OLFC. I can say that firmly, accurately, and honestly by virtue of having lived in the same home near OLFC since 2003. On Figure 3.1-3, the "departure" flight tracks are depicted in pink and none of the lines in pink are indicated to fly directly over the vicinity of OLFC. My experience in the past 13 years leads me to say firmly, accurately, and honestly that there are many more days in the year in which departure flights from Ault Field fly directly over my home and OLFC than there are flying days in any of those 13 years. Moreover, many of the flights have a noise profile having a very high intensive noise level and a sound duration period of time at least three or more times as long as the duration of a noise profile for any single Growler executing a FCLP. Further, the noise on both departure and arrival flight tracks often is magnified and accentuated because of variables such as multiple Growlers in a group formation, the ascent is with full power, or the arrival flight is descending from a very high speed and high altitude, thereby accentuating the noise emanating from the Growler or Growlers in flight at the time; and often involves multiple aircraft.

Similarly, Table 4.2-1 shows the estimated acreage and population within the "DNL Contour Ranges" for both Ault Field and OLFC and other tables are included elsewhere for each of the Alternative proposals.

Historically, there seems to me to be an underlying Navy bias in favor of increasing the number of FCLP's more for OLFC than for Ault Field. The DEIS, as I have shown, is structured in a way that supports that conclusion, but it isn't limited to the DEIS. For example, there is a document bearing the signature of the then Base Commander of the NAS Whidbey Complex, Captain Michael Nortier, and signed under Penalty of Perjury. The document is a Declaration in support of the Navy's opposition to a Plaintiff's request for an Injunction: That Declaration in part states: "The population surrounding Ault Field is greater than that surrounding OLF Coupeville which means noise impacts from aircraft operations at Ault Field impact a greater number of people than at Coupeville." a footnote, numbered 2, states as follows: "Population data shows that in 2010 Coupeville, Washington, population was 1831 and Oak Harbor population was 22,075." While those numbers are accurately quoted, they are misleading and deceptive and, in my opinion, reflects the existing and continuing Navy bias to which I refer and which I believe is real. It is simply a superficial, conclusory position devoid of merit as a basis upon which to reach a conclusion.

OLFC is NOT within the city limits of Coupeville, and OLFC encompasses far more people than the population within the city limits of Coupeville. Also, I point out that the data to which Captain Nortier referred includes statistics for all of Island County, in which both Coupeville and Oak Harbor are located. The population for the entire county is said to be 78,506, of which 28,438 is located outside the city limits of those two towns as well as all other towns in Island County. Indeed, 100 percent of the population surrounding OLFC resides outside of the city limits of Coupeville. While I do not ascribe "Perjury" to the actions of Captain Nortier, I suspect he or his staff had a motive hidden by his choice of words. Or maybe it was just sloppiness and incomplete research or incomplete thoughts by his staff. Worse, however, is that Captain Nortier seems to have been very comfortable with making a statement belittling the communities surrounding OLFC as being more "worthy" of more noise than the community of Oak Harbor because Oak Harbor has more population. He doesn't bother to point out that the economy of Oak Harbor is directly dependent upon NAS Whidbey or that the economy of Coupeville is dependent to a large extent upon Tourism and small-farm agriculture, as well as being the county seat. Tourism and FCLP's are like oil and water. They don't mix. Tourists come to Whidbey Island often to "escape" from the business of their lives

elsewhere. Coupeville is laid back, not hustle/bustle, and definitely not captured by what could be Captain Nortier's mantra assumed to be "More Noise For Coupeville Because They Have Fewer People Than Oak Harbor."

Consider the relative benefits to the respective communities of Oak Harbor and Coupeville, of being located close to NAS Whidbey or to OLFC. Oak Harbor derives a very large economic benefit from NAS Whidbey, in the context of real estate values in the price ranges that are popular with Navy personnel and residents that obtain employment directly or indirectly from the Navy. What would happen to the economy of Oak Harbor if NAS Whidbey was closed? At least for a few years, the Oak Harbor economy would collapse or be in an economically depressed state. Not so much for Coupeville. There might be a little downturn, but its shops and restaurants derive more business from Tourists and Whidbey Islanders who live close to Coupeville, and likely would survive. It would be quieter and more conducive to more Tourists seeking quiet, solitude, peaceful surroundings in which to relax.

Further, I believe it is accurate to say that even the lovely community that is Anacortes, which is located in Skagit County, unlike either Oak Harbor or Coupeville, receives a larger overall benefit from NAS Whidbey than Coupeville. It is the case that noise associated with Ault Field is acceptable to a far greater percentage of the resident population in Oak Harbor than it is by Coupeville, and jobs, jobs, jobs, is the driving reason why that is so. In that regard, a Department of Defense document, (See militaryinstallations.dod.military) states that in the context of NAS Whidlbey, there are 7,050 military personnel and 14000 dependents, 2,400 civilians jobs and contract employees and about 5,000 family members, plus even 50 Canadian members of the Canadian military and their families. Those numbers are projected to increase significantly in the relatively near future. Thus, there are more people dependent upon employment or military service at NAS Whidbey than the entire population of Oak Harbor, but the Oak harbor population likely does not include persons residing on-base or in Navy housing.

In contrast, there is a paucity of interaction between the Navy and the people who live in the neighborhoods surrounding OLFC. If you consider the lack of interaction and the virtual absence of economic benefit to the OLFC neighborhoods, there is a huge difference between a comparison of Oak Harbor and Coupeville, in the context of who merits more FCLP operations. Moreover, there are numerous topographical maps in the DEIS showing runways for both OFLC and Ault Field. I invite you to take a close look at two maps for the purpose of comparing density of houses within one mile of the Runways. For Ault Field, Runways 14 and 07 appear to have no houses between the end of the runways and the ocean, Runway 25 has few houses between the end of the Runway and on into Dugualla Bay. Runway 32, which is seldom used for FCLP's does have several houses before reaching water either at Dugualla Bay or beyond the Seaplane Base, which is part of the NAS Whidbey complex. In comparison, Runway 32 at OLFC, since the arrival of Growlers, has been used far more than Runway 14 for FCLP powered-landing approaches preliminary to the "Touch" portion of a FCLP and also receives considerable noise from the "Go" portion of a FCLP when Runway 14 is used. Topographical maps show dozens of homes at the end of the "clear" zone of Runway 32. That comparison draws into serious question the accuracy and validity of of Mr. Nortier's comment to the effect that FCLP's impact a lot more people at Ault Field than at OLFC, if you consider the number of people who are exposed to 75 DNL or more. Moreover, Mr. Nortier's claim doesn't address at all the economic impact upon Coupeville and its environs of even the No Action Proposal, much less Alternative 1, 2, or 3 in each of the three scenarios proposed as possibilities in the DEIS. But that seems to be the standard of analysis replete throughout the DEIS.

This discussion leads to the final point that, in view of the fact that the Navy is moving to Ault Field ALL of the Growlers owned by the United States to NAS Whidbey to become their home base for all training and FCLP's, that would be a decision that could not withstand close

scrutiny, in terms of the uncompensated burden it would impose upon the Civilians who happen to live near OLFC and who have scant connection or interaction with NAS Whidbey. Those citizens are not the enemy of the United States Navy and should be protected from having their lives and property wealth destroyed by an overly aggressive and short-sighted, and apparently uncaring Navy. Indeed a Navy that apparently is led by men willing to engage in unconscionable, un-American behavior, as by subjecting Civilians to the noise that comes with Growlers. it is absolutely time to close OLFC and find another location or alternative to imposing upon the residents of the neighborhoods surrounding both FCLP landing strip the ever increasing burdens of noise, that are not offset by benefits, upon thousands of unwilling recipients of dangerous levels of noise. The extent of the noise dosages are not provided in the DEIS. You, the reader, should ask why not? Because of noise levels, hearing health issues, and other health issues, not to mention the risks to the economic health of Coupeville and its environs, maybe now is the time to demand a serious inquiry at the local level, by the highest levels of Navy Command, and by the appropriate committees of the United States Congress. Maybe it's time to tell the Navy that now is the time to find a **permanent** solution to its FCLP landing strip by finding a location that avoid all issues respecting civilians living beneath FCLP flight tracks. It's time to stop imposing high and dangerous levels of noise unilaterally upon civilians having scant connection or interaction with the Navy to bear the noise burden resulting from the Navy's poor decisions of the past.

SECTION 8.

DNL, NIOSH, & OSHA: On Noise Exposure Doses

DNL is not an actual measurement of noise, but rather a 24-hour, day/night average. Thus, the entire 24-hour period of time is used. Why it is important to use both noisy time and sleeping or quiet time is an interesting question. The answer is that is just the way it is done. That 24-hour average could include data from one day, one average flying day, one week, one year, or any other period of time. Considering that the Navy claims it conducts FCLP operations at OLFC only approximately 45 days per year, you might think that the 24-hour day/night average reflecting Growler noise on those 45 FCLP-flying days might be the appropriate time period to reflect sound averages on those days. Not so much. The Navy's average is for the entire year It includes every day of the year. The result is a much-diluted number, expressed in decibel levels that don't really exist, and then to draw contour lines for various levels of "DNL" numbers. Historically, there have been studies to determine for example the threshold expressed in the DNL's, at which complaints about noise levels have started or that reflect percentages of people who are "highly annoyed." That category of people has been reflected in the history of the development of airports as well as land-use planning.

My favorite quote about "DNL" is contained in a document advocating the "Abandon[ment of the Current Day-Night Level Noise Standard of 65 dBA DNL," from the website of the NPC-Noise Pollution Clearinghouse and it is:

" A punch from Michael Tyson, averaged over an hour, is equivalent to a love pat." The averaging hides the impact. It would be further dilluted if averaged for an entire 24-hour period.

One indicator of the appropriateness of using primarily the DNL 24-hour Day-Night average to determine the risk to Civilians who live private lives in homes near the OLFC is to compare the use of that standard with the manner in which the Navy collects and assesses noise in other settings. Search results from "Googling" combinations of words such as Navy, noise, exposure, Navy Medicine, and high noise sources, for example, reveals the existence of a large number of reports, studies, surveys, charts and other documents, many within the past 10 years, that clearly signals the existence of serious Navy concerns about high-levels of noise, including disability costs in the context of Navy personnel and civilian employees. But nothing about consequences of living in a home in a neighborhood inundated with noise from FCLP's. A review of those documents yields one striking result. In that body of research and analysis, it is difficult to find even one that relies primarily on the DNL standard of noise exposure, in contradistinction to the DEIS.

DNL standards comprise the primary tool of analysis in the DEIS and may facilitate a finding and decision of "No Significant Impact" for any of the proposals contained therein. In other situations, like cockpits, flight decks of aircraft carriers, engine rooms, and numerous other areas where people work, the noise metric of DNL generally is not mentioned. Instead, actual numbers, expressed in dB's or averages or time-weighted averages are collected and then assessed. In one Navy document regarding noise, the document declares that "this chapter provides the basic information necessary to evaluate and document employee **noise exposure** and to assist with determining compliance with Department of Defense (DoD) noise instructions (www.Med.Navy.Mil/sites/mmcphc/Documents/industrial-hygiene/HFOM-Ch.5.pdf. In another, the Defense Safety Oversight Council Initiative contains numerous charts, including one entitled "Nine DoD High Noise Sources and One Promising Technology, which references the length of unprotected exposure time in various work environments encountered within the Navy workplaces, all of which, except one, are lengths of time less than a full minute for exposure to levels of noise expressed in decibels (dBA)(www.public.Navy..Mil/NAVSEFECGN/Documents.

My point essentially is that the DEIS does not concern itself, or express Navy concern for noise exposure for any category of Civilians who will be exposed to noise levels that, if it were a Navy workplace, the Navy would encounter legal obligations, if the noise exposure measured in decibels and in duration meets certain threshhold levels, to provide hearing protection devices suitable for the working environment, warnings about exposure in terms of exposure time limitations, and restrictions on duration of exposure. Notwithstanding that the DEIS is threatening to increase FCLP's from 6,100 to 35,100 at OLFC per year, but is not providing the noise exposure projections based on a suitable metric that is not DNL for all the FCLP anticipated to be executed in a day, a busy day or a month, or whatever. That statistic is useless if expressed in a way that dilutes actual measurement with the noise exposure while sleeping.

Next, I wish to refer to a document entitled Noise Exposure: Explanation of OSHA and NIOSH Safe-Exposure Limits and the Importance of Noise Dosimetry, prepared by Patricia T Johnson, AuD, of Etymotic Rsearch, Inc. The document states, as follows:

"It's a noisy world, and hearing damage from loud sound affects millions of people. Noise-induced hearing loss (NIHL) and associated disorders of tinnitus, hyperacusis and diplacusis are all irreversible. This is a tragedy, considering that these often debilitating conditions are preventable. The keys to prevention are in understanding the risks and consistently acting to minimize the risks." I have attached to this Section of my Comments, a copy of the Johnson article. It is well-written and easily understood. I think.

Dr. Johnson presents the case that there is new evidence confirming the existence of a greater need for monitoring in view of new research that concludes "that noise can produce subclinical damage that goes undetected, progresses unnoticed, and really manifests itself long after the fact. We can't measure this subclinical damage using audiometric tests, including the "gold standard" for testing NIHL: pure tone hearing

thresholds. Data collected over many years from persons exposed to industrial noise shows that most NIHL develops over the first 10-15 years of noise exposure and then asymptotes (levels off). From a preventive standpoint, the sooner we identify hearing risk and minimize it, the better. We need to educate our young people and equip them to protect their hearing at an early age, ideally before damage occurs. To do this we must monitor noise exposures to assess risk and use hearing protection when necessary to reduce the risk of NIHL."

In the United States, the Occupational Safety and Health Act of 1970 created two organizations, OSHA (Occupational Safety and Health Administration in the U.S. Department of Labor); and NIOSH (the National Institute for Occupational Safety and Health in the Center of Disease Control and Preventions in the U.S. Department of Health and Human Services. OSHA develops and enforces workplace safety and health regulations, while NIOSH conducts research and provides information, education, training, and recommendations regarding occupational safety and health. NIOSH recommends standards and best practices, but does not have regulatory or enforcement authority. The following chart contains duration of allowable exposures of OSHA and NIOSH:

Level, in dB A	85	88	90	92	94	95	100	105	110	115
OSHA PEL	16		8			4	2	1	0.5	0.25
NIOSH REL	8	4			1		0.25			

"Duration (in hours) of allowable exposures based on OSHA and NIOSH criteria. PEL = Permissible Exposure Limit; REL = Recommended Exposure Limit. Noise exposure levels/ times exceeding those shown in Figure 1 require the use of hearing protection."

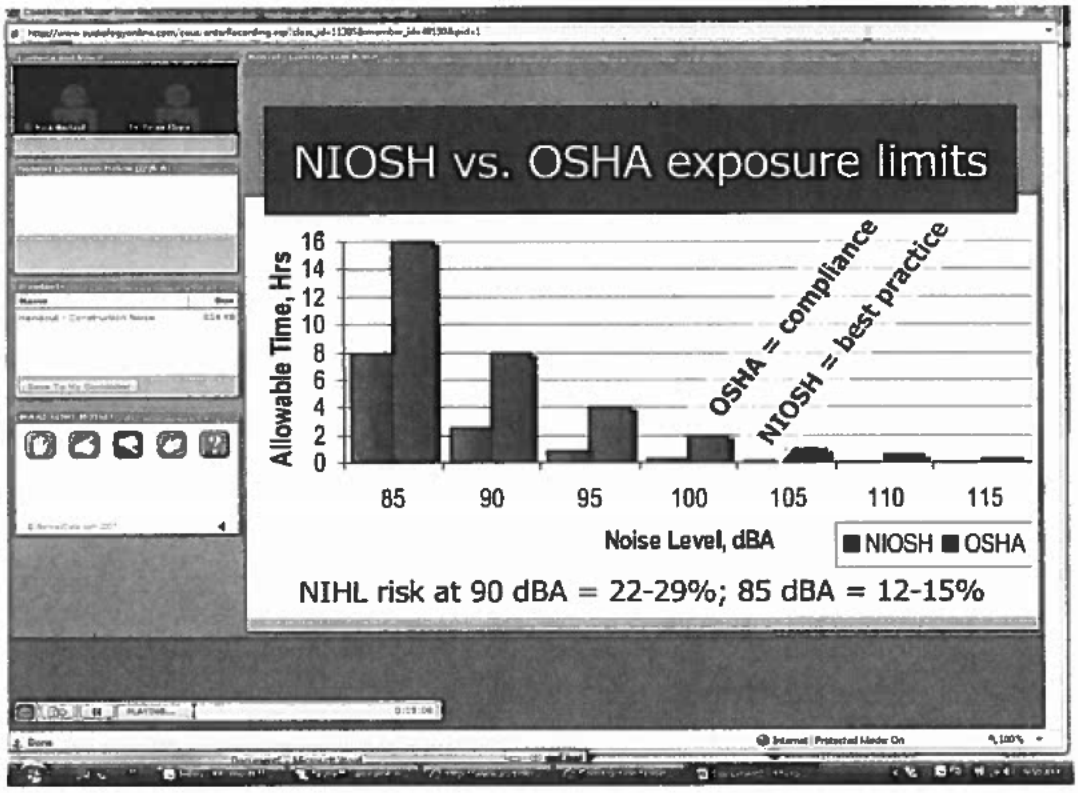
"OSHA permits exposures of 85 dBA for 16 hours per day, and uses a 5-dB time-intensity tradeoff: for every 5 dB increase in noise level, the allowable exposure time is reduced by half. For every 5 dB decrease in noise level, the allowable exposure time is doubled. All time/intensity values shown on the OSHA PEL line in Figure 1 are assumed to have equal risk to each other, that is, 16 hours at 85 dB carries the same auditory risk as 8 hours at 90 dB, 4 hours at 95 dB, 2 hours at 100 dB, and so on."

"NIOSH recommends an exposure limit of 85 dBA for 8 hours per day, and uses a 3 dB time-intensity tradeoff: for every 3 dB increase in noise level, the allowable exposure time is reduced by half. For every 3 dB decrease in noise level, the allowable exposure time is doubled. The time/intensity values shown on the NIOSH REL line in Figure 1 are assumed to have equal risk to each other, that is, 8 hours at 85 dB carries the same auditory risk as 4 hours at 88 dB, 2 hours at 91 dB, and so on. "

"The differences in OSHA criteria and NIOSH recommendations for exposure limits produce different outcomes: the more lenient OSHA values allow for higher exposures for

longer durations and the more conservative NIOSH values recommend lower exposures for shorter durations."

The following chart presents a graphic comparison between the NIOSH and OSHA exposure limits. NIHL means noise-induced hearing loss:



The Johnson Article also contains a discussion regarding monitoring sound exposure by the use of either sound meters or sound dosimeters. In addition, there are new developments in the form of I-Phone and Android applications (that are very inexpensive) and the reading information suggests that the combination of a highly-rated "app", combined with an omni-directional microphone mounted on a stand, will provide you with

an ability to measure your own sound exposure. Personally, I certainly will do so, because I do not believe, given the extraordinary amount of money expended by the Veterans' Administration for military-related hearing disabilities, that for some residences around OLFC it will take 40 years, as the Navy claims, for hearing damages to be manifested by loss of hearing. Indeed, I have lived in the same home for the last 14 years and believe that my hearing has sustained a measurable and significant loss of hearing capability. Further, I am bothered with having received no warnings that I should have been wearing protective ear coverings. I admit that I did not do so, but did not believe I was in any danger or I would have been told. Indeed, I doubt that even as to the people the Navy paid $750,000 to, for Avigation Easements approximately 14 years ago, the Navy provided any warnings. Given the vast experience the Navy has accumulated in regard to hearing disabilities, I cannot understand the current position of the Navy regarding Civilians who live beneath FCLP flight tracks and some of us have worked 1,000's of hours in our respective backyards and gardens.

But I do believe it is up to us Civilians, at present, to both measure the actual sound level exposures in our respective yards, and to occasionally have a witness observe and take notes just in case. . . . Further, we all should wear protective ear coverings. when FCLPs are so close it hurts or is discomfortable.

Last but not least, the Johnson article discusses the topic of "Noise Dose," and explains not only the differences in the OSHA and NIOSH standards, and indicates that the differences are most pronounced at the highest noise levels, as you can see in the charts above. She makes the point that the risk of noise-induced hearing loss is greater under the OSHA standards than under the NIOSH standards. The Navy follows the OSHA standards. My personal view is that because the NIOSH standards were adopted in 1998, after many additional studies had been conducted following adoption of lower standards by OSHA in 1983, the NIOSH standards are the standards Civilians living the noise hell that may be unilaterally imposed upon us should follow for a self- monitoring program in lieu of one that the Navy won't provide. The clincher is that the Johnson article on page 7 warns that a single exposure of 100 dB for 2 hours, which is acceptable under OSHA standards but not acceptable under NIOSH standards, resulted in "irreparable damage to IHC afferent nerve terminals and associated degeneration of the cochlear nerve." The inference is that there is little if any room for individual differences (age, prior non-military noise exposure, and so on) under the OSHA standards and that it may well be wiser to follow the NIOSH standards.

Keep in mind that there are places near OLFC where even the Navy's projections (which are said by a private study to be inaccurate by being too low) show maximum sound exposure levels at 3 of the 4 residential POI's for OLFC with levels well over 100dB and remember that for ever 3 dB there is a noise doubling effect. Using the Navy's numbers, how many times would a Growler come over the Admirals Drive POI on an up-tempo, 5-Growler, 5-Session flying day. What would be noise exposure be if you are planting

summer plants in your backyard all day long? What if the Navy's projections are wrong by 6 decibels on the low side.?

The Johnson article continues with this statement about noise dosage:

"An important point about noise dose is that it is cumulative; noise dose never decreases over time. While sound levels may go up and down over time, noise dose only increases or plateaus over time. This is because you can't remove the exposure once it has occurred, much the same way you can't undo sun exposure after the fact. When the combination of sound levels and duration exceed those shown in Figure 4, noise dose increases to values greater than 100% (see Figure 5)."

Figure 5

OSHA (1983)

Level (dBA)	Duration	Dose %
105	1	100
105	2	200
105	4	400
105	8	800
105	16	1600

NIOSH (1998)

Level (dBA)	Duration	Dose%
94	1	100
94	2	200
94	4	400
94	8	800
94	16	1600

"A 200% noise dose is two times the allowable limit (equivalent to two days' worth of noise exposure); a 400% noise dose is four times the allowable limit (equivalent to four days' worth of noise exposure), and so on. Do exposures like this occur often enough for us to be concerned? Absolutely! Measurements taken during a drum line demonstration in the band room at a local high school, with only half of the drum line students resulted in a 1400% noise dose after only 45 minutes.

"

Using dosimetry results to recommend hearing protection"

"The simplest way to use noise dosimetry results is to recommend use of hearing protection whenever noise dose exceeds 50%, particularly if that dose is reached early in the noise exposure period. Initiating protection at a 50% noise dose is more protective, especially for individuals with higher than average susceptibility to NIHL. This also recognizes the potential for exposure to noise throughout the day, rather than limiting potential exposure to the work day only."

One thing is certain, DNL contours are no substitute for actual measurements when it comes to health. With a DNL, you do not measure sound exposure. You get contours. Worse yet, DNL can be misleading. My view is the best practice is to follow the NIOSH recommendations and if exposures exceed the exposure limits, then contact the Navy by all means, but don't just stop there. Keep records. And increase record reliability by occasionally having someone witness the measurements and your record of them. Someday, they may become useful.

Noise Exposure: Explanation of OSHA and NIOSH Safe-Exposure Limits and the Importance of Noise Dosimetry

by Patricia T. Johnson, AuD

ETYMŌTIC RESEARCH INC.

INTRODUCTION

It's a noisy world, and hearing damage from loud sound affects millions of people. Noise-induced hearing loss (NIHL) and associated disorders of tinnitus, hyperacusis and diplacusis are all irreversible. This is a tragedy, considering that these often debilitating conditions are preventable. The keys to prevention are in understanding the risks and consistently acting to minimize the risks.

NEW EVIDENCE FOR URGENCY

NIHL and associated disorders (which, for simplification, will be included in the acronym "NIHL") are caused by overexposure: listening to sound that's too loud, for too long. NIHL can occur from a single activity such as an explosion or a loud concert, but it usually occurs gradually over many years. Decades of data have shown that noise-related shifts in hearing appeared to be temporary, a phenomenon known as temporary threshold shift (TTS). With TTS, hearing thresholds typically recover to pre-noise exposure levels after a period of auditory quiet. Because of this recovery, many of us assumed that the structure and function of the auditory system was affected only temporarily by noise, returning to normal (or pre-exposure) levels after a period of quiet. We believed that permanent changes in auditory anatomy transpired only after repeated auditory insults occurring over many years. However, research on noise exposure in animal models by Kujawa and Liberman (2009) challenges these assumptions.

Kujawa and Liberman (2009) found that while outer hair cells do recover post-exposure (with a corresponding recovery of hearing thresholds and otoacoustic emissions [OAEs]) other changes in the basal region of the cochlea do not recover: there is dramatic degeneration of both pre- and post-synaptic elements of the inner hair cells and spiral ganglion cells. Not only is this damage undetectable using current test protocols (pure tone thresholds, OAEs and Auditory Brainstem Response [ABR]) but the loss of spiral ganglion cells is not seen until weeks or months post-exposure. Kujawa and Liberman suggest that noise-induced hearing damage has progressive consequences that may not manifest until much later. This damage may be expressed as difficulty hearing in noise and/or in associated auditory disorders (tinnitus, hyperacusis, etc.).

The implication of this research is that noise can produce subclinical damage that goes undetected, progresses unnoticed, and finally manifests itself long after the fact. We can't measure this subclinical damage using audiometric tests, including the "gold standard" for testing NIHL: pure tone hearing thresholds. Data collected over many years from persons exposed to industrial noise shows that most NIHL develops over the first 10-15 years of noise exposure and then asymptotes (levels off). From a preventive standpoint, the sooner we identify hearing risk and minimize it, the better. We need to educate our young people and equip them to protect their hearing at an early age, ideally before damage occurs. To do this we must monitor noise exposures to assess risk and use hearing protection when necessary to reduce the risk of NIHL.

WHO GOVERNS NOISE EXPOSURE?

In the United States, concern with noise exposures began primarily in the workplace. Guidelines for occupational noise exposure were established by the Occupational Safety and Health Administration (OSHA, 1983) and the National Institute for Occupational Safety and Health (NIOSH, 1998). Both OSHA and NIOSH were created by the Occupational Safety and Health Act of 1970 (see www.cdc.gov/niosh/about.html).

OSHA is part of the U.S. Department of Labor and is responsible for developing and enforcing workplace safety and health regulations. The OSHA standard (29CFR1910.95) carries behind it the force of law and employers in the industrial sector are bound to comply with it. Those employed in mining, railroad, coast guard, military, and construction are bound by their own standards.

NIOSH is part of the Centers for Disease Control and Prevention (CDC) in the U.S. Department of Health and Human Services. NIOSH conducts research and provides information, education, training, and recommendations regarding occupational safety and health. As such, NIOSH is in a position to recommend standards and best practices, but it is not in a position to regulate or enforce standards.

LIMITING NOISE EXPOSURE: DAMAGE-RISK CRITERIA

How long and how loud can we listen to sound without risking hearing damage? Damage-risk criteria provide the basis for recommending noise exposure limits based on noise level and exposure time. OSHA and NIOSH criteria are shown in Figure 1.

Level, in dB A	85	88	90	92	94	95	100	105	110	115
OSHA PEL	16		8			4	2	1	0.5	0.25
NIOSH REL	8	4			1		0.25			

Figure 1. Duration (in hours) of allowable exposures based on OSHA and NIOSH criteria. PEL = Permissible Exposure Limit; REL = Recommended Exposure Limit. Noise exposure levels/times exceeding those shown in Figure 1 require the use of hearing protection.

OSHA permits exposures of 85 dBA for 16 hours per day, and uses a 5-dB time-intensity tradeoff: for every 5 dB increase in noise level, the allowable exposure time is reduced by half. For every 5 dB decrease in noise level, the allowable exposure time is doubled. All time/intensity values shown on the OSHA PEL line in Figure 1 are assumed to have equal risk to each other, that is, 16 hours at 85 dB carries the same auditory risk as 8 hours at 90 dB, 4 hours at 95 dB, 2 hours at 100 dB, and so on.

NIOSH recommends an exposure limit of 85 dBA for 8 hours per day, and uses a 3 dB time-intensity tradeoff: for every 3 dB increase in noise level, the allowable exposure time is reduced by half. For every 3 dB decrease in noise level, the allowable exposure time is doubled. The time/intensity values shown on the NIOSH REL line in Figure 1 are assumed to have equal risk to each other, that is, 8 hours at 85 dB carries the same auditory risk as 4 hours at 88 dB, 2 hours at 91 dB, and so on.

The differences in OSHA criteria and NIOSH recommendations for exposure limits produce different outcomes: the more lenient OSHA values allow for higher exposures for longer durations and the more conservative NIOSH values recommend lower exposures for shorter durations. The NIOSH values are based on scientific studies relating noise exposure to hearing loss, and are more protective of hearing. It should be noted that both standards are based on the assumption that the noise occurs as part of a work environment, and both assume non-occupational quiet. That is, the limits are based on an 8-hour workday, five days per week over a 40-year working lifetime, and the time the individual is not at work (the other 16 hours in a day, as well as weekends) is assumed to be quiet. The standards do not account for noisy activities and hobbies (e.g., concerts, ATVs, snowmobiles, power tools, car races, live music, etc.) which may increase risk for NIHL.

ORIGIN OF DAMAGE-RISK CRITERIA

The NIOSH Recommended Exposure Limit (REL) is based on scientific data relating noise-induced permanent threshold shift (NIPTS) to the level and duration of noise exposures (NIOSH, 1998). In contrast, the OSHA Permissible Exposure Limit (PEL) was the result of debate and compromises that are a part of enacting any legislation (OSHA, 1983). Neither guideline is completely protective in nature; both allow for some NIPTS based on their individual definitions of material hearing impairment and the percentage of the population for whom this risk is deemed acceptable. Additionally, standards are based on average risk (rather than individual susceptibility) so certain individuals may be at greater or lesser risk for developing NIHL.

Definition of Material Hearing Impairment

The time/intensity limits comprising the OSHA PELs and NIOSH RELs are in part based on each organization's definition of material hearing impairment and the excess risk of developing that impairment.

OSHA defines material hearing impairment as average hearing thresholds exceeding 25 dB HL at 1k, 2k and 3k Hz, bilaterally. NIOSH uses the same definition, except that thresholds at 4 kHz (where the effects of noise are usually seen first and/or worst) are included. The inclusion of 4k Hz is an improvement over the OSHA definition; however, the averaging of thresholds across frequencies and ears means that significant hearing loss can occur before either formula labels it as hearing impairment. The audiogram shown in Figure 2 reveals a mild to moderate high-frequency hearing loss, but this audiogram does not meet the definition of material hearing impairment under either the OSHA or NIOSH standards.

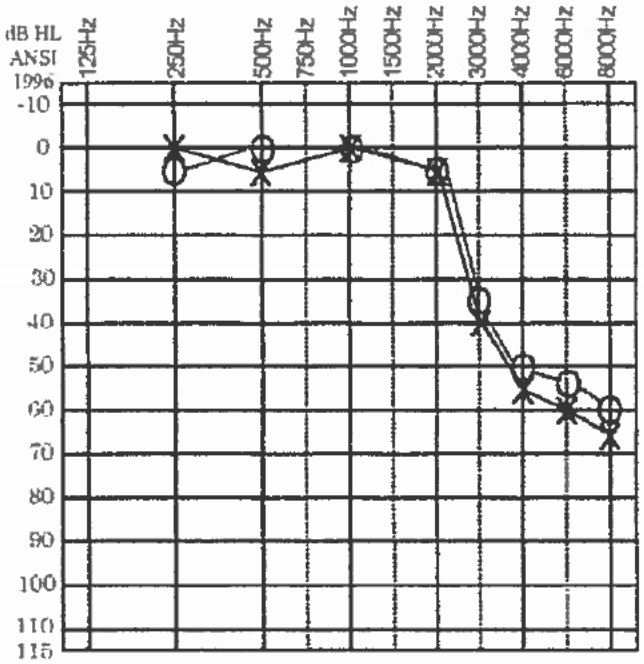


Figure 2.

Both OSHA and NIOSH definitions include 1k and 2k Hz, where NIHL is not likely to be seen. This has the effect of "watering down" the average loss across frequencies. In the presence of normal low-to- mid frequency hearing, there must be moderate to moderately-severe high frequency hearing loss in both ears to produce a 3-frequency or 4-frequency average exceeding 25 dB. Significant hearing loss can occur before it is labeled as such by these definitions.

Excess risk

Excess risk is defined as the percentage of people in a noise-exposed population who develop a material hearing impairment (as defined by OSHA or NIOSH) above and beyond the percentage of people in a non-noise-exposed population who develop a material hearing impairment. Excess risk is calculated based on the exposure level and assumes an 8-hour work day, 5 days per week, over a 40-year working lifetime. Figure 3 shows the excess risk of developing material hearing impairment for different exposure levels, based on the NIOSH definition of material hearing impairment.

Exposure Level (8-hr time-weighted average)	Excess Risk
80 dB A	1%
85 dB A	8%
90 dB A	25%

Figure 3. Excess risk of developing material hearing impairment as a function of daily noise exposure (assuming a 5-day work week) over a 40-year working lifetime

As can be seen in Figure 3, a 90 dB exposure incurred 8 hours per work day over a working lifetime, results in 25% excess risk of developing material hearing impairment, while an 85 dB exposure results in 8 % excess risk of developing material hearing impairment. While neither criterion protects all workers, the NIOSH limit of 85 dB is more protective and if followed, results in fewer workers sustaining material hearing impairment.

Individual susceptibility

Individual susceptibility for NIPTS depends on genetic predisposition ("tough ears" vs. "tender ears"), environmental contaminants (e.g., chemicals and solvents), medications (e.g., chemotherapy or antibiotic agents that react synergistically with noise and exacerbate NIHL), medical conditions (e.g., diabetes, heart disease) and behaviors (e.g., smoking). Environment, health and lifestyle issues, combined with occupational and non-occupational noise, determine an individual's risk for developing NIHL. An individual could adhere to the limits of the more conservative NIOSH recommendations and still develop NIHL due to individual risk factors that can't be accounted for in standards.

In summary, both the OSHA and NIOSH limits seek to reduce risk for the average person, rather than to prevent NIHL for all individuals.

MEASURING NOISE EXPOSURES

To assess risk of NIHL we need to know the level and duration of noise exposures so we can compare them to the RELs. Noise can be measured using a sound level meter or a noise dosimeter.

A sound level meter measures sound level at a single point in time, which is useful when sound is steady-state with little variation in level. Sound level meters are inexpensive, widely available, and relatively simple to use. When sound exposures vary in level and duration it's difficult to accurately estimate exposure using a sound level meter, and a noise dosimeter should be used instead.

A noise dosimeter measures sound levels continuously over time and integrates them into a single value, the noise dose. A dosimeter provides a more accurate estimate of noise exposure when sound levels fluctuate and/or exposure durations vary, and can alert the user in real time to the need for hearing protection based on the accumulated noise dose. Noise dosimeters have traditionally been expensive and complicated to operate, limiting their use to special applications by highly trained individuals. Etymotic Research, in collaboration with Greg Flamme, Ph.D., developed two low-cost personal noise dosimeters that are easy to operate and can be used for a wide variety of applications.

NOISE DOSE

Noise dose is expressed as a percentage of a predetermined maximum, defined by the standard you choose (e.g., OSHA or NIOSH). Dose is calculated based on the criterion level, threshold level and exchange rate. Criterion level is the sound level which, if continuously applied for 8 hours, would result in a 100% noise dose. Threshold level is the level below which the dosimeter produces no noise dose accumulation (values below that level are effectively considered to be zero). Exchange rate is based on the equal-energy hypothesis, which assumes that equal amounts of sound energy will produce equal amounts of hearing impairment.

OSHA uses a criterion level of 90 dB, a threshold level of 80 dB, and an exchange rate of 5 dB. An OSHA 100% noise dose is 90 dB for 8 hours, 95 dB for 4 hours, 100 dB for 2 hours, and so on (OSHA decreases the PEL to 85 dB for 8 hours if the employee has a documented threshold shift; see 29CFR 1910.95 for additional details).

NIOSH uses a criterion level of 85 dB, a threshold level of 75 dB, and an exchange rate of 3 dB. A NIOSH 100% noise dose is 85 dB for 8 hours, 88 dB for 4 hours, 91dB for 2 hours, and so on (see Figure 1).

Since OSHA and NIOSH define dose differently, the first rule of interpretation is to know which standard the dose calculation was based on. As illustrated previously, the NIOSH and OSHA allowable sound levels and times differ, so each define a 100% dose differently (see Figure 4).

OSHA (1983)

Level (dBA)	Duration	Dose %
90	8	100
95	4	100
100	2	100
105	1	100
110	30 min	100
115	15 min	100

NIOSH (1998)

Level (dBA)	Duration	Dose %
85	8	100
88	4	100
91	2	100
94	1	100
97	30 min	100
100	15 min	100

Figure 4. Equivalent unprotected noise exposures (level over time) that produce a 100% noise dose.

The differences in the OSHA and NIOSH standards become noticeable at high noise levels: OSHA allows a 100 dB noise exposure for two hours, while NIOSH limits it to 15 minutes; OSHA allows a 115 dB noise exposure for 15 minutes, while NIOSH limits it to 28 seconds (not shown). These differences undoubtedly produce differences in risk for NIHL, with the OSHA criteria carrying higher risk. The exposure used by Kujawa and Liberman (2009) was 100 dB for 2 hours, which constitutes a 100% dose as defined by OSHA. This single exposure produced irreparable damage to IHC afferent nerve terminals and associated degeneration of the cochlear nerve.

An important point about noise dose is that it is cumulative; noise dose never decreases over time. While sound levels may go up and down over time, noise dose only increases or plateaus over time. This is because you can't remove the exposure once it has occurred, much the same way you can't undo sun exposure after the fact. When the combination of sound levels and duration exceed those shown in Figure 4, noise dose increases to values greater than 100% (see Figure 5).

OSHA (1983)

Level (dBA)	Duration	Dose %
105	1	100
105	2	200
105	4	400
105	8	800
105	16	1600

NIOSH (1998)

Level (dBA)	Duration	Dose %
94	1	100
94	2	200
94	4	400
94	8	800
94	16	1600

Figure 5.

A 200% noise dose is two times the allowable limit (equivalent to two days' worth of noise exposure); a 400% noise dose is four times the allowable limit (equivalent to four days' worth of noise exposure), and so on. Do exposures like this occur often enough for us to be concerned? Absolutely! Measurements taken during a drum line demonstration in the band room at a local high school, with only half of the drum line students resulted in a 1400% noise dose after only 45 minutes.

Using dosimetry results to recommend hearing protection

The simplest way to use noise dosimetry results is to recommend use of hearing protection whenever noise dose exceeds 50%, particularly if that dose is reached early in the noise exposure period. Initiating protection at a 50% noise dose is more protective, especially for individuals with higher than average susceptibility to NIHL. This also recognizes the potential for exposure to noise throughout the day, rather than limiting potential exposure to the work day only.

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SECTION 10.

GROWLER NOISE LEVELS: IMPACT ON HEARING HEALTH

Among the documents included on the website of the Federal Aviation Administration, is a document entitled "Hearing and Noise in Aviation." In that document, the term sound is used to describe the mechanical radiant energy that is transmitted by longitudinal pressure waves in a medium, and that sound waves are variations in air pressures above or below ambient pressure. It then states that the term "sound" describes "the sensation perceived by the sense of hearing" and that all sounds have three distinct variables: frequency, intensity, and duration." The article defines each of those as follows:

> "**Frequency**. This is the physical property of sound that gives it pitch. Since sound energy propagates in a wave-form, it can be measured in terms of wave oscillations or wave cycles per second, known as hertz."
> "**Intensity**. The correlation between sound intensity and loudness. The decibel (dB) is the unit used to measure intensity. The range of normal hearing sensitivity of the human ear is between -10 to +25 dB. Sounds below -10dB are generally imperceptible. [Any person] who cannot hear a sound unless its intensity is higher than 25 dB (at any frequency) is already experiencing hearing loss."
> "**Duration.** Determines the quality of the perception and discrimination of a sound, as well as the potential risk of hearing impairment when exposed to high intensity sounds. The adverse consequences of a short-duration exposure to a loud sound can be as bad as a long-duration exposure to a less intense sound. Therefore, the potential for causing hearing damage is determined not only by the duration of a sound but also by its intensity."

The FAA Article also distinguishes between types of noise and categorizes those as "steady" or "impulse/blast" noise. It describes "steady noise" as "continuous noise of a sudden or gradual onset and long duration (more than 1 second)" and provides examples to include aircraft power plant noise, propeller noise and pressurization system noise" and quotes the Occupational Safety and Health Administration (OSHA) as having determined that the maximum permissive continuous exposure level to steady noise, set forth in a sliding scale, is 90 dB for 8 hours down to a limit of ½ hour for noise intensity of 110 dB per hour, or ¼ hour per day for noise intensity of 115dB (See also, Section 8 - DNL, NIOSH & OSHA, My Comments, regarding lower level noise exposure recommendations by NIOSH). Then it describes examples of impulse noise to include noise from firing a handgun or being in proximity to jet engine noise. Finally, it warns that if the ambient noise level reaches 90 dBA, you must use hearing protection equipment to prevent impairment. (I note that at Sullivan Road the diluted DNL is said by the Navy to be 90 dB DNL, which averages into that calculation both non- flying days and and quiet times, and I wonder whether the Navy has publicly warned people who live in that vicinity).

The Internet also reveals the existence of a document entitled "Community Aircraft Noise: A Public Health Issue, prepared by Karen Bowman, MN, RN, COHN-S, of Karen Bowman & Associates, a Seattle-based Environmental Health Specialist who has an Advanced Practice Degree in Community Health Systems and works closely with the Department of Occupational Safety and Health. She is a Professor at the University of Washington in the area of Hearing Health. A copy of that informative report is attached at the end of this Section. The article provides an overview of environmental noise exposure as a public health issue, discusses noise

and the anatomy and physiology of the ear and of hearing, indicates how noise exposure is measured and mitigated, as well as noting the health effects of excessive noise exposure including hearing loss, psychosocial impacts of noise exposure, the relationship between noise, stress hormones and health, the interrelationship between noise and immune disturbances, and the interrelationship between aircraft noise and health.

At a minimum, the Bowman Report draws into serious question both the methodology and findings prepared for inclusion in the DEIS regarding noise and its effects on health and education, and serves as a clarion call for the Navy to move into the 21st century in giving appropriate regard to the hearing health of civilians who live below the onslaught of noise imposed by Growler overflights and FCLP's.

The DEIS includes in Appendix A, at page A-52, a Table 5-5 that is entitled "Estimated Aircraft DNL at POI for the Average year No-Action Alternative." I was unable to find a parallel estimate for any of the 9 other possible Navy choices proposed and analyzed in the DEIS. That search included searching the Table of Contents which lists all the Charts, figures and tables prepared for inclusion in the DEIS. I would think that, for example, increasing the number of FCLP's at OLFC from 6,100 to 35,100 might have an impact on the average DNL for the OLFC POI's. If not, that is merely further evidence that the 24-hour 365 day per year average may be little more than a hoax, in the context of assessing whether Growler noise is a threat to the hearing of those citizens who live under FCLP flight paths. Moreover, there are no documents included in the DEIS indicating for various flying days, or up-tempo flying days, the expected levels of total noise exposure at any of the OLFC POI's (there should be far more than a mere 4 POI's for residences near OLFC, in view of as much as a 575% increase in the number of FCLP operation increases).

I would like to draw your attention to the residential portion and the school portion of Table 5-5. The respective DNL "estimates" for Admirals Drive is 79, for Race Lagoon is 61, and for Coupeville Elementary School is 59. If you are not familiar with the location of those places, called POI's for purposes of the DEIS, let me assist you in understanding the geographical relationships between those three locations. When OLFC Runway 32 is used for FCLP operations, Admirals Drive is located at the landing end of the Runway, and close to being directly below the loudest part of an FCLP "touch down." Race Lagoon will receive noise regardless of whether Runway 32 or 14 is used (those are the only runways at the landing strip that is OLFC. It generally lies to the East of both runways, but receives the noise when runway 14 is used because it also is not only east of the runways, it is a bit north of the center spot of the landing strip that is FCLP and would receive a lot of noise associated with "Go" thrust in addition to the "Touch" wheels-down powered landing noise. The Race Lagoon POI is directly below downwind legs of FCLP operations involving Runway 14 at OLFC. To the extent Race Lagoon is situated to the side of the landing strip, it likely does not receive the maximum noise associated with either the powered landing "Touch" approach or the "Go" take off thrust of an EA-18G Growler. The Coupeville Elementary School lies approximately 3 miles from the center spot of the landing strip that is FCLP and will receive noise primarily after the take off from Runway 32 as the aircraft executes a left hand turn and begins the downwind legs of FCLP's involving Runway 32 at OLFC, preliminary to executing an approach procedure to execute the next touch. It likely involves noise generated by a Growler cruising at 400 to 600 feet.

To me, the "estimated" numbers are highly suspect in terms of a comparison with reality. If you compare the estimated computer-generated modeling numbers for Admirals Drive and Race

Lagoon, there is a significant and substantial difference between 79 and 61 dB DNL. If 3 dB is equal to a doubling of sound comparing 100 dB to 103 dB, you do the math for a 5-fold increase projected by table 5-5. To me, those two numbers are statistically improbable in reality. Further, the numbers for Coupeville Elementary School and Race Lagoon are improbably too close to each other, given their respective proximity to their respective proximity to Growlers engaged in FCLP operations. More specifically, Race Lagoon is much closer in proximity to a Growler at either the touch segment or the take off segment of a FCLP operation than the Coupeville Elementary School. There is said to be only a 2 dB difference in estimated noise, based on the Navy's chosen methodology. Further, because Race Lagoon would receive Growler noise when FCLP operations utilize Runway 14 and when Runway 32 is used, it is likely that the DNL of 61, compared to the 79 for Admirals Drive, is understated substantially. Moreover, comparing Race Lagoon with Sullivan Road near Ault Field, to me is suspicious, unless the difference is based primarily on distance from the runway. In any event there is an enormous difference between 90 DNL for Sullivan Road and 61 for Race Lagoon. Do the math to see how much louder is Sullivan Road than Race Lagoon. I also note that, similar to the proximity of Sullivan Road, Keystone Hill Road is parallel to the Runways at OLFC. I further point out that no POI was selected for the entire roughly 4-5 miles of coastline between Race Lagoon and the City of Coupeville. That area receives high levels of noise because many arrivals and departures from Ault Field and not involving OLFC, arrivals and departures before and after FCLP closed loops at OLFC, as well as FCLP's at the point of the final descent when Runway 14 is used and the left turn prior to the beginning of the downwind legs when Runway 32 is used. I guess we must use our own meters to determine noise exposure doses.

Additional comparisons for many of the POI selections also build into the data numbers that are equally suspect and improbable in the real world.

In addition, there are examples of the Navy's own words that belie reality and support the conclusion that the Navy is disingenuous in presenting a fair and balanced record regarding noise. In the DEIS, the Navy declares that Growler flights, at a higher than FCLP altitude, ranging from 6,000 feet to 16,000 feet, would generate noise at ground level between 69 and 84 dB "**comparable to the sound level of a passing automobile**." While there are studies that place the dB of a passing car in the vicinity of 65 to 76 dB, let us remember that the context in which we are assessing is as to noise in the context of NAS Whidbey and residences surrounding OLFC. A Purdue University Study of Noise Sources and Their Effects (See chem.purdue.edu), characterizes a passenger car at 65 mph from a distance of 25 feet as having a dB level of 77; on the freeway at 50 feet from pavement edge at 76, and measured living room music at 76 dB and a vacuum cleaner at 70 dB. But the notion that Growler noise of between 69 dB and 89 dB is similar in quality to noise of a passing car does not reflect the intensity, frequency, or length of the sound waves produced by a Growler at 6,000 to 16,000 feet, especially if the Growlers are in groups or formations of two or more (often is three flying from NAS Whidbey). The length of even a single Growler at 6,000 or so feet will last 20 or more seconds, while noise from a car driving by my home on a public street might last 2 seconds. The Navy's comparison is a typical and common effort apparently to understate all noise generated freely by Growlers flying at OLFC.

It should be noted that my comments include statements regarding the flights in and out of NAS Whidbey that occur directly overhead, as viewed from my home. They could be flown under Whidbey Approach Controller direction primarily over water, but instead more often than not are directed from a point near Dugualla Bay to a point between Snakelum Point and Long Point in a

southerly or southwesterly route directly over the OLFC. Why the Navy uses this flight direction, in view of the burden of FCLP's conducted from OLFC seems more like spite than anything. Flights continuing over the Saratoga Passageway would impose noise upon far fewer people than upon those that already are imposed upon to the max. The Navy M.O. seems to be to fly over OLFC whenever possible. And in the case of my home, maybe even it hit with some Electronic Warfare (See Section 5, Electronic Warfare Against one Civilian? My Comments).

Moreover, it is elementary that hearing losses are not potential losses in and around OLFC even under the existing and currently used program that anticipates a maximum of 6,100 FCLP operations per year. Hearing losses already have occurred. I, for example, am but one of many who are ready, willing, and able to submit to any objectively conducted hearing tests and you will then better understand that I have lost substantial hearing capacity and ability in the 14 years I have lived below noise generated by Prowlers and Growlers. It didn't take 40 years for that to occur. Moreover, it is noted that attention presently is given by the Navy for its "own people," but not including civilians whose only relationship with the Navy is that of living below FCLP flights and operations.

The Navy's DEIS concludes that the values presented in those tables are only applicable in the extreme case of outdoor exposure at ones residence to all aircraft events occurring over a period of 40 years and that it is highly unlikely any individual would meed all of the criteria necessary to establish a hearing loss attributable to Growler noise. That statement is highly suspect in terms of validity and likely will lead to at least two consequences: (a) a Navy finding of "no significant impact" of any of the proposals contained in the DEIS, and (b) a continuation of an Official Policy of an Agency of the United States of America that denies any relationship between Growler noise and the hearing health of fellow Americans who are subjected to that noise. The Navy's modeling calculations are debunked not only by hearing loss in real people and by numerous studies based on fact rather than the computer-generated models created somewhere in an office rather than in the real world, and in part based upon "data" that is provided by the Navy to Wyle Laboratories and must involve secrets because it isn't put before the public although it involves public health..

One of the issues in this arena is as to cost. It is difficult if not impossible for the general public to finance and repeatedly conduct long-term testing to provide needed data to provide decisive, accurate information. And the Navy seems entirely satisfied nationally to continue to ignore reality and instead to rely upon computer modeling that reaches results seemingly always favorable to the Navy's Three Mice M.O, regarding hearing, seeing, and doing.

Table 5-6, at page A-53 of Appendix A, DEIS, is entitled "Estimated Potential Hearing Loss for the Average Year No Action Alternative and Table 6-8a, at page 77, is entitled "Estimated potential Hearing Loss for the Average Year Alternative 1A. Those figures are based upon computer modeling and the Navy has not revealed any studies based upon data collected during actual FCLP operations when pilots are unaware that studies are being conducted. Thus, neither the computer models nor their conclusions have been validated by factual data collected in an objective manner.

Regardless of conclusions reached, based upon a computer modeling program, there exist real-life adverse impacts upon real people that are absent from acknowledgement in the DEIS but are not absent in reality. Further, there is an existing program of FCLP operations that could be studied, and many of us are reasonable people who have deep-seated, life-long love of

country who also love Whidbey Island, and willingly would assist the Navy in the conduct of a real-life, fact-based study of that existing program. There is a tremendous conflict between being able to live a good life on Whidbey Island and the conduct of any FCLP operations anywhere on Whidbey Island, but especially upon the people who live in the vicinity of OLFC and who have virtually no interrelationship with NAS Whidbey. That conflict is proposed by the DEIS to continue to be ignored in favor of increasing the episodes of noise terror from 6,100 operations per year to as many as 35,100 annual FLCP operations, which represents a multiplication factor of between 5 and 6. In my opinion that would be unconscionable. It is unbelievable, and it is frightening that this kind of behavior by an instrumentality of government could happen in America, especially when it is absolutely clear there are other areas and locations in the western United States that would both facilitate keeping all the aircraft at NAS Whidbey, and provide an alternative FCLP landing strip where NO civilians would be subjected to the worst noise imaginable for a non-military neighborhood or vicinity. That should be the goal of the Navy and of every resident of Whidbey Island who sees Whidbey as their permanent, long-term domicile rather than a temporary, short-term place of residence that often is different from their domicile.

The Navy often is quoted as saying that OLFC is the "best location" and "is designed to provide the most realistic training" for FCLP's. Neither is true if interests other than the Navy interests are a consideration. It also is made in the vacuum of never considering that there are other locations that would be better than OLFC. Also, the Navy's intransigent position flies in the face of their mantra that they "want a dialog" with members of the community and that they "want to be a good neighbor." In fact, the OLFC is nothing more than a bare bones landing strip (plus an approach radar set and a couple of bare bones buildings) that has no permanent personnel assigned to it and could be duplicated and improved upon by a replacement landing strip built elsewhere. For example, a new runway could be a longer runway more suitable for landing EA-18G's rather than the "short" 5,400 strip at OLFC, thereby eliminating the risk to Civilians who live in the Navy's self-described "conceptual" Accident Protection Zones. The Navy presently has EA-18Gs fly to other locations in both Washington and Oregon for the conduct of several other forms of training, including in the Navy's own words "Growler aircraft that are transiting from Ault Field . . .to nearby military training areas (Olympic, Okanogan, Roosevelt, and NWSTF Boardman, for Electronic Warfare Training, Low level military flying tactics, and utilizing weaponry aboard a fully loaded ready-for-action Growlers. ." It would not constitute a large or long step to remove FCLP training from Whidbey Island. Thus, there exists several levels of precedents for training EA-18G pilots and crew other than at OLFC or NAS Whidbey.

Further, the cost of a selected new landing strip or two landing strips is relatively slight on a national scale but would have tremendous benefit both to NAS Whidbey and OLFC by ridding Island County of the extreme burden involuntarily imposed and proposed to be increased by intolerable and totally unacceptable levels that would devastate the civilian population who live in the vicinity of OLFC and would impose warlike levels of noise upon civilians who get no benefits of having the Navy as a community member. The time has come for the Navy to get real and work to resolve the OLFC burden and issues by finding a different site and location upon which FCLP operations could be performed without burdening any civilians or military personnel.

If the Navy really loves OLFC, why have they never sought to make it a permanent part of NAS Whidbey, and build some housing onsite at the OLFC for Navy personnel like Growler Pilots and their families and Crew. The obvious answer is they likely would have a mutiny because of the

obvious and numerous issues associated with living anywhere close to a facility that conducts FCLP operations.

One last bit of news as I close this Section. In 2013 and 2014, the United States Navy decided to expand its NAS Key West training program to include 52,000 FCLP operations for the F/A-18E/F aircraft in Florida. In response, a retired Officer with 25-years of service service in the United States Navy, on January 21, 2014, referred to the Federal Bureau of Investigation (FBI) an allegation that a 2003 Environmental Assessment for Fleet Support (EA) prepared and submitted by the Navy was in violation of 18 U.S. Code Section 1001, as well as other federal laws, by knowingly and willfully making materially false statements. The EA had reached a finding, expressed in a Navy Record of Decision (ROD), of "No Significant Impact." (See The Blue Paper, The Key West Newspaper, Navy Jet Noise: Hammerstrom Calls in the FBI).

www.faa.gov/pilots/safety/pilotsafety

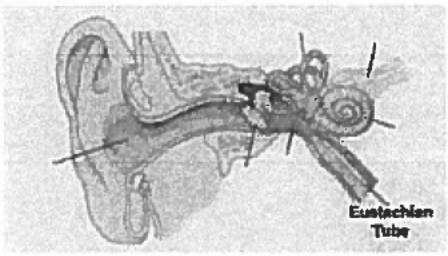
Federal Aviation Administration

HEARING AND NOISE IN AVIATION

HEARING

The term *hearing* describes the process, function, or power of perceiving sound. Hearing is second only to vision as a physiological sensory mechanism to obtain critical information during the operation of an aircraft. The sense of hearing makes it possible to perceive, process, and identify among the myriad of sounds from the surrounding environment.

Anatomy and Physiology of the Auditory System



The auditory system consists of the external ear, ear canal, eardrum, auditory ossicles, cochlea (which resembles a snail shell and is filled with fluid), and the auditory nerve.

Ambient sound waves are collected by the external ear, conducted through the ear canal, and cause the eardrum to vibrate. Eardrum vibration is mechanically transmitted to the ossicles, which, in turn, produce vibration of a flexible window in the cochlea. This vibration causes a pressure wave in the fluid located inside the cochlea, moving thousands of hair-like sensory receptors lining the inner walls of the cochlea. The movement of these receptors resembles the gentle movement of a crop field caused by the wind. The stimulation of these sensors produces an electrical signal that is transmitted to the brain by the auditory nerve. This signal is then processed by the brain and identified as a particular type of sound.

SOUND

The term *sound* is used to describe the mechanical radiant energy that is transmitted by longitudinal pressure waves in a medium (solid, liquid, or gas). Sound waves are variations in air pressures above and below the ambient pressure. From a more practical point of view, this term describes the sensation perceived by the sense of hearing. All sounds have three distinctive variables: frequency, intensity, and duration.

Frequency. This is the physical property of sound that gives it a pitch. Since sound energy propagates in a wave-form, it can be measured in terms of wave oscillations or wave cycles per second, known as hertz (Hz). Sounds that are audible to the human ear fall in the frequency range of about 20-20,000 Hz, and the highest sensitivity is between 500 and 4,000 Hz. Sounds below 20 Hz and above 20,000 Hz cannot be perceived by the human ear. Normal conversation takes place in the frequency range from 500 to 3,000 Hz.

Intensity. The correlation between sound intensity and loudness. The decibel (dB) is the unit used to measure sound intensity. The range of normal hearing sensitivity of the human ear is between -10 to +25 dB. Sounds below -10dB are generally imperceptible. A pilot who cannot hear a sound unless its intensity is higher than 25 dB (at any frequency) is already experiencing hearing loss.

Duration. Determines the quality of the perception and discrimination of a sound, as well as the potential risk of hearing impairment when exposed to high intensity sounds. The adverse consequences of a short-duration exposure to a loud sound can be as bad as a long-duration exposure to a less intense sound. Therefore, the potential for causing hearing damage is determined not only by the duration of a sound but also by its intensity.

NOISE

The term *noise* refers to a sound, especially one which lacks agreeable musical quality, is noticeably unpleasant, or is too loud. In other words, noise is

any unwanted or annoying sound. Categorizing a sound as noise can be very subjective. For example, loud rock music can be described as an enjoyable sound by some (usually teenagers), and at the same time described as noise by others (usually adults).

Sources of Noise in Aviation. The aviation environment is characterized by multiple sources of noise, both on the ground and in the air. Exposure of pilots to noise became an issue following the introduction of the first powered aircraft by the Wright Brothers, and has been a prevalent problem ever since. Noise is produced by aircraft equipment powerplants, transmission systems, jet efflux, propellers, rotors, hydraulic and electrical actuators, cabin conditioning and pressurization systems, cockpit advisory and alert systems, communications equipment, etc. Noise can also be caused by the aerodynamic interaction between ambient air (boundary layer) and the surface of the aircraft fuselage, wings, control surfaces, and landing gear. These auditory inputs allow pilots to assess and monitor the operational status of their aircraft. All pilots know the sounds of a normal-functioning aircraft. On the other hand, unexpected sounds or the lack of them, may alert pilots to possible malfunctions, failures, or hazards. Every pilot has experienced a cockpit or cabin environment that was so loud that it was necessary to shout to be heard. These sounds not only make the work environment more stressful but can, over time, cause permanent hearing impairment. However, it is also important to remember that individual exposure to noise is a common occurrence away from the aviation working environment—at home or work, on the road, and in public areas. The effects of pre-flight exposure to noise can adversely affect pilot in-flight performance.

Sources of Sound/Noise

SOURCES	LEVEL (dB)
Whispered Voice	20-30
Urban Home, Average Office	40-60
Average Male Conversation	60-65
Noisy Office, Low Traffic Street	60-80
Jet Transports (Cabin)	60-88
Small Single Plane (Cockpit)	70-90
Public Address (PA) Systems	90-100
Busy City Street	80-100
Single Rotor Helicopter (Cockpit)	80-102
Power Lawn Mower, Chain Saw	100-110
Snowmobile, Thunder	110-120
Rock Concert	115-120
Jet Engine (Proximity)	130-160

Types of Noise

Steady: Continuous noise of sudden or gradual onset and long duration (more than 1 second). Examples: aircraft powerplant noise, propeller noise, and pressurization system noise. According to the Occupational Safety and Health Administration (OSHA), the maximum permissible continuous exposure level to steady noise in a working environment is 90 dB for 8 hours.

Impulse/blast: Noise pulses of sudden onset and brief duration (less than 1 second) that usually exceed an intensity of 140dB. Examples: firing a handgun, detonating a firecracker, backfiring of a piston engine, high-volume squelching of radio equipment, and a sonic boom caused by breaking the sound barrier. The eardrum may be ruptured by intense levels (140dB) of impulse/blast noise.

EFFECTS OF NOISE EXPOSURE

Physiologic

- **Ear discomfort:** May occur during exposure to a 120 dB noise.
- **Ear pain:** May occur during exposure to a 130 dB noise.
- **Eardrum rupture:** May occur during exposure to a 140 dB) noise.
- **Temporary hearing impairment.** Unprotected exposure to loud, steady noise over 90 dB for a short time, even several hours, may cause hearing impairment. This effect is usually temporary and hearing returns to normal within several hours following cessation of the noise exposure.
- **Permanent hearing impairment:** Unprotected exposure to loud noise (higher than 90dB) for eight or more hours per day for several years, may cause a permanent hearing loss. Permanent hearing impairment occurs initially in the vicinity of 4,000 Hz (outside the conversational range) and can go unnoticed by the individual for some time. It is also important to remember that hearing sensitivity normally decreases as a function of age at frequencies from 1,000 to 6,000 Hz, beginning around age 30.

Psychologic

- **Subjective effects:** Annoying high-intensity noise can cause distraction, fatigue, irritability, startle responses, sudden awakening and poor sleep quality, loss of appetite, headache, vertigo, nausea, and impair concentration and memory.
- **Speech interference:** Loud noise can interfere with or mask normal speech, making it difficult to understand.
- **Performance:** Noise is a distraction and can increase the number of errors in any given task. Tasks that require vigilance, concentration, calculations, and making judgments about time can be adversely affected by exposure to loud noise higher than 90 dB.

HOW TO PROTECT YOUR HEARING

Limiting duration of exposure to noise. OSHA-established permissible noise exposure limits for the workplace (including the cockpit of an aircraft):

Noise Exposure Level Limits

Noise Intensity (dB)	Exposure Limit (hrs. per day)
90	8
92	6
95	4
97	3
100	2
102	1.5
105	1
110	.5
115	.25

Use Hearing Protection Equipment. If the ambient noise level exceeds OSHA's permissible noise exposure limits, you should use hearing protection devices—earplugs, earmuffs, communication headsets, or active noise reduction headsets. Even if an individual already has some level of permanent hearing loss, using hearing protection equipment should prevent further hearing damage. These protection devices attenuate noise waves before they reach the eardrum, and most of them are effective at reducing high-frequency noise levels above 1,000 Hz. It is very important to emphasize that the use of these devices does not interfere with speech communications during flight because they reduce high-frequency background noise, making speech signals clearer and more comprehensible.

- **Earplugs.** Insertable-type earplugs offer a very popular, inexpensive, effective, and comfortable approach to provide hearing protection. To be effective, earplugs must be inserted properly to create an air-tight seal in the ear canal. The wax-impregnated moldable polyurethane earplugs provide an effective universal fit for all users and provide 30 to 35 dB of noise protection across all frequency bands.
- **Communication headsets.** In general, headsets provide the same level of noise attenuation as earmuffs, and are also more easily donned and removed that earplugs, but the microphone can interfere with the donning of an oxygen mask.

- **Active noise reduction headsets.** This type of headset uses active noise reduction technology that allows the manipulation of sound and signal waves to reduce noise, improve signal-to-noise ratios, and enhance sound quality. Active noise reduction provides effective protection against low-frequency noise. The electronic coupling of a low-frequency noise wave with its exact mirror image cancels this noise.
- **Combinations of protection devices.** The combination of earplugs with earmuffs or communication headsets is recommended when ambient noise levels are above 115dB. Earplugs, combined with active noise reduction headsets, provide the maximum level of individual hearing protection that can be achieved with current technology.

SUMMARY

- Hearing is second only to vision as a sensory mechanism to obtain critical information during the operation of an aircraft.
- All sounds have three distinctive variables: frequency, intensity, and duration.
- Normal conversation takes place in the frequency range from 500 to 3,000 Hz.
- Daily exposure to noise levels higher than 90dB can cause hearing impairment. This can go unnoticed initially because it occurs in the vicinity of 4,000 Hz (outside the conversational range)
- If the ambient noise level reaches 90dBA, you must use hearing protection equipment to prevent impairment

SECTION 11.

VIBRATIONS AND CONCUSSIVE SOUND WAVES: EFFECTS OF THOUSANDS OF REPEATED EA-18G "GROWLER" FLIGHTS ON THE BLUFFS OF WHIDBEY ISLAND

It is well known that there are seismic fault lines that run through, under, or near Whidbey Island. In addition, a visit to the available earthquake monitoring/reporting websites reveals a history of earthquakes in the vicinity of Whidbey Island. Further, many small, some medium, and a few relatively large landslides have involved the various bluffs of Whidbey Island. In the past few years, one medium slide occurred approximately 600 feet to the west of my property, taking approximately 600 - 900 cubic yards of glacial till from about 10 feet down from the edge of the bluff all the way to the water line, along with two dozen or so uprooted, mature trees. The width of that slide was approximately 100 feet. This past year a small slide occurred precisely on Kineth Point destroying the use of approximately 30 - 50 cubic yards of glacial till material. The point to be taken here is that the coastal bluffs of Whidbey Island are comparatively fragile and in danger of being damaged or destroyed, and should be protected from abuse by any person or entity, including the Navy. Effectively, all of the coastline of Whidbey Island is owned by the Federal, State of Local Government, or by private parties like myself. To me, it is quite valuable and treasured. In other parts of the United States where FCLPs are performed, including Florida where F-18s engage in FCLP operations, there are no bluffs at low level approaches to landing strips.

Prior to purchasing the lot upon which my home was constructed in 2002, I secured the study of a Geologist regarding the stability of the bluff that is on the waterfront. The Geologist concluded that "no significant geologic hazard exists at the subject undeveloped lot." He further stated that "The extremely steep coastal bluff segments southwesterly of Long Point and southeasterly of Snakelum Point have been the erosional feeder bluffs for deposition of the respective cuspate spits or "points", during the past several thousand years. The steep bluff of glacial till, from 50 to 100 feet high, below the Kineth point Woods subdivision is a minor feeder bluff that contributes to gravelly sediments on Rodena Beach, a pocket beach with relatively little erosion of the low coastal bluff below (my lot). . . .That situation augurs well for minimal bluff erosion along the northerly edge of (my lot)." He later quantified for me the average annual erosion to be expected on the bluff that fronts on my property, as being one-half inch per year.

My acre-sized Garden is one of the finer ones on Whidbey, and often is sought by others for us to be the host for a garden tour. Last year, we hosted the Whidbey Island Garden Tour (a 100% charity fundraiser) attended by about 650 people over a 6-hour viewing window, as well as several other smaller tours. We have hosted an average of 4-5 tours over the past 10 years, including several from Canada and other parts of the United States. We have spent thousands of hours working in the Garden notwithstanding the extreme noise and nuisance imposed upon us by the Navy. It is

during that large part of time, working in the garden, (working without the benefit of a Navy warning to wear ear protection, primarily because of Navy assurances that there was no need to do so) that gives us a high degree of experience feeling the concussive effect of the sound waves and vibrations, generated by both Prowlers and Growlers. It is our position that the Growlers generate a substantially greater degree of vibrations and concussive sensations. Recent research tends to verify that fact by recognizing that the Growlers' engines generate a more powerful, lower-frequency sound wave than the Prowlers.

The Navy, in its latest DEIS, recognizes that fact and discusses it in the context of structures at NAS Whidbey, Indian Burial Grounds, and other historic sites, but does not discuss or even mention the Coast Line and high bluffs that in essence surround much of Whidbey Island.

It is my belief and opinion that there is a **cumulative effect of frequent Growler flights, especially at levels below 600 feet, as is common with FCLP operations at both NAS Whidbey and OLFC, upon the relatively fragile bluffs of Whidbey Island, and that it is gross negligence for the Navy to continue to ignore the potential for danger of contributing to more and more landslides.** Who can say with scientific certainty that the large landslide that occurred on the west side of Whidbey Island about 5 years ago (about the time Growlers were beginning to arrive at NAS Whidbey), was NOT in part due to Growler-generated vibrations and sound waves?

The DEIS, prepared by the Navy, does not discuss, scientifically, with the assistance of credible geologists and others with landslide expertise, and without a Navy bias, the present and future impact of vibrations and concussive aspects of sound waves generated and distributed by any EA-18G flights. Neither does it discuss the likelihood that up to 36,100 flights at low levels over the relatively fragile coastline of Whidbey Island as contemplated by the No Action Alternative or by Scenario A, B, or C of Alternative 1, 2, or 3 in the DEIS, might or could or definitely will have an adverse impact on the coastline of Whidbey Island.

While the DEIS does contain an acknowledgement that architectural resources "within NAS Whidbey" and its immediate surroundings may be impacted by noise and vibration from the operation of Growler aircraft (DEIS, pages 4-193-195), it quickly concludes that damage would not be expected because sound levels do not reach a weighted130 dB level. **There is no attempt to provide credible documentation as to whether there is the likelihood of a cumulative factor in weighing the possibility of a noise or sound induced landslide, or whether a lower threshold that 130 dB would or could not trigger a destructive landslide on Whidbey Island, especially where there exists and has existed long before the arrival of the Navy on Whidbey Island fractures and fissures from prior times.**

Once there is a landslide, there is no possibility of a repair. The Coastline of Whidbey Island is relatively unique. As such, it should be guarded and protected, not ignored.

Most of the houses built on Whidbey's bluffs were built with a government-issued building permit and were completed and inhabited long before the arrival of Growlers with their low-frequency noise generating engines. It is time for the Navy to engage in meaningful study of this issue. If it is the Navy's position that they would prefer to destroy the coastline of Whidbey Island, then maybe it is time for the Navy to simply buy miles of shoreline properties and raze all structures. At least, then the Navy could have ownership of ingress and egress avenues at any level. It may well be an abuse of power for the Navy to continue to engage in Growler activities that may well destroy privately-owned waterfront lands of Whidbey. Especially considering that there are many reasonable alternatives to conducting FCLP operations at OLFC.

SECTION 12.

HEARING HEALTH ISSUES AND GROWLERS, UNTIL F-35'S ARRIVE

"The mission of the Navy is to maintain, train and equip combat-ready Naval forces capable of winning wars, deterring aggression and maintaining freedom of the seas." **navy.Mil.com**). In more detail, the Secretary of Defense sets forth the Primary Missions of the U.S. Armed Forces at the website (archive.defense.gov/nnews/Defense_Strategic_Guidance.pdf). Neither statement mentions interactions with between Navy's leaders and American Civilians who happen to live in the vicinity in which Naval training occurs. However, it is clear that the Navy's authority is limited, restricted, and subject to the rights and obligations of every American set forth in the Constitution of the United States and in hundreds of Federal Laws. NEPA is one of those laws. It was enacted in the full day (or glare) of both the Constitution and other laws.

It is my personal opinion that the Navy, as fine an organization as it is, and as critical as it is to the safety and security of the United States, indeed much of the World, sometimes focuses more attention to its mission as a Branch of the Armed Forces of the United States to the exclusion of its limitations and obligations set forth in both the Constitution and in various laws, including NEPA (See, for example, Section 1, My Comments). My purpose here is not to focus on the excesses of the exercise of Naval Power, rather it is to emphasize the impacts the Navy is having on the hearing health of actual real live American Citizens, and the impacts it is threatening unilaterally to impose upon some of the people who live in the vicinity of OLFC.

Initially, I concede that it is absolutely impossible to persuade any Officer of the United States Navy, except privately, that the Navy in the past is guilty of excesses in exercising its considerable power as it relates to Citizens who happen to live in the vicinity of OLFC. I am aware of what happens to Officers who do not adhere to enforcing a decision made up the chain of command. I sincerely doubt that any Officer assigned to NAS Whidbey has authority to, or wants to change a significant decision made at a higher level of Command. I recall an incident in my own Air Force career of six years. While I had a very fine record, including being offered (and accepted) a Regular Commission upon graduating quite high in my OTS Class, heading a maintenance and operations squadron at Cross City, Florida, that in the 15 months following my assignment to that unit, went from 117th of 119 identical or similar units within the North American Air Defense Command to First of 119 with the same senior NCO staff in place when I arrived (and received a Commendation Medal for my success), was selected for Special Career Monitoring (Top 2% of officers, as rated). While at a remote assignment in my last year (I had been extended one year at the time I submitted my letter of resignation), I was a lowly Captain, in charge of maintaining the various pieces of equipment for an AC&W Squadron and received a package (a copy of which went to about 10 Officers in other locations and of higher ranks than mine, up to the Commander of the Pacific Air Force. The package was in regard to the installation of an additional height-finder radar. The one we had was used only about 25% of its capabilities. I didn't think we needed to spend money for another, so in my comments, solicited of all people who received copies of the package, I spoke the truth, and included a political statement, about the future use of the planned installation. A few days later, I began to receive phone calls from the three officers immediately above me. They were basically one-sided conversations. Six months later, just before installation was planned to commence, the installation project was canceled, but my phone remained silent.
My point here is that it is necessary, sometimes, to provide information that may seem at odds with prior decisions. However, how can a decision that is at odds with new evidence or with

reality be modified or revised, or scrapped, if someone doesn't take the lead and provide that information. You can't force someone to read new information, but you can nonetheless provide the information without endangering your career. But not always, I understand.

I also understand that the manifestation of the effects of excessive exposure to noise may be delayed by a period of time. Even decades. But hearing losses of people exposed to Navy Aircraft noise are a reality today. At one time long ago, hearing protection devices were not a part of the Navy's uniform-of-the-day. Things changed, but Billions of Dollars are being spent by American Taxpayers for disability benefits for Navy personnel. And warnings abound for Navy workplaces having very high levels of noise exposure, in terms of intensity and duration.

Further, in reality there is no worse levels of, or exposure to, noise for citizens who have no direct relationship with the Navy, than the noise associated with a continuous stream of F-18E/F's or EA-18G's flying FCLP's. For people living below the flight paths and near the landing strip or runway for the incumbent Touches and Go's, the noise is disruptive, intrusive, unwelcome and dangerous. I believe strongly that there exists sufficient medical and Navy-generated information to cause a reasonable person to want to know and understand the actual noise levels to which citizens who live near OLFC are subjected to involuntarily. Continued Navy denial of the existence of actual levels of noise that endanger the future hearing of many of us, viewed in the light of the burgeoning mountain of evidence that high levels of noise are dangerous, could become a stain on the Navy's reputation. I do not believe continued reliance on the mantra that projected noise contours drawn by or in accordance with NOISEMAP projections that have never been verified (or ever publicly acknowledged as having been verified) is acceptable. The Citizens whose hearing is an issue deserve better. The Navy obligations in this regard are clear, under NEPA and the Constitution of the United States, to which the Navy is subject.

SECTION 9.

"NOISE ISSUES" INVOLVING GROWLER FLIGHTS

Aircraft noise is a complex subject matter that has been studied literally for several decades, and remains the primary focus of many research efforts today. Why? Because, over time "noise" generated by and emanating from planes flying overhead has achieved singularity as the largest source of civilian complaints in the realm of Aviation. So too it is on Whidbey Island, in the context of FCLP operations at OLFC.

According to the Federal Aviation Administration (hereafter FAA), which governs commercial and private aviation, aircraft noise is regulated through standards that are set internationally. Under the guidance of effective efforts by the FAA over the last 40+ years, internationally accepted standards have divided noise generated by civil jet aircraft into four distinct stages or levels, with Stage 1 being the loudest and Stage 4 being the quietest. Correspondingly, Stage 2 is quieter than Stage 1, and Stage 3 is quieter than Stage 2 (See FAA Publication "Aircraft Noise Issues" www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/airport_aircraft_noise_issues/). Currently, within the contiguous United States, civil jet aircraft over 75,000 pounds maximum take-off weight are required to meet Stage 3 or Stage 4 noises to meet noise thresholds for flying. As a result of this attempt to reduce noise, in historical terms, the order of magnitude of noise exposure reduction in the face of the gross number of private and commercial jet aircraft has dropped 90 percent from a high in 1975 to an historical low in 2012. In other words, noise exposure to the civilian population emanating from private and commercial jets was reduced by 90 percent, notwithstanding a large increase in the number of planes flying (Id.)

The experience in the realm of military aircraft is precisely the opposite of the efforts of FAA and the international aviation community. That is to say, the magnitude of noise, by any method of noise measurement resulting from military flight operations in the United States, has increased dramatically at the same time noise from commercial and private flying operations has dramatically decreased.* One reason for that result has to do with the design of particular types of military aircraft to provide more in-flight maneuverability and thrust. Noise has never been a design element for military aircraft.

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* In support of my opposition to approval of the DEIS, to expand EA-18G FCLP operations at OLFC, I am attaching to this document a portion of a document that analyzes the contentions of the Navy regarding noise, entitled "Outlying Field Coupeville: Its Time Has Passed," October 16, 2016, prepared by the Technical Committee of Citizens Of Ebey's Reserve. That attachment is hereby incorporated as a part of my document. While I do not always agree with COER, or with COER tactics, its contributions are acknowledged and appreciated. I believe their efforts have been invaluable, if not popular at NAS Whidbey, and believe they will achieve greater success in the future.

There also is a tactical benefit from having an incredibly loud and fast aircraft whenever the element of surprise is an asset (but there is no body of people in the world who get more noise from aircraft than American citizens who live beneath low-altitude FCLP flight tracks). The design criteria utilized in the development of new aircraft for the military viewed in the context of the increase of public disdain and annoyance for noisy aircraft of any type or kind, has created points of contention, social tension, dismay and anger on all sides of that issue. An experience in Virginia involving Naval air stations and FCLPs is useful to better understand both or all sides of the issue.

As we all know, FCLP's are designed to train pilots to land aircraft safely on aircraft carriers, and are designed to closely duplicate actual landing procedures at sea. They are essential to both the safety of the Pilot and his/her Electronic Warfare Crewmate, as well as the safety of the $90 million dollar aircraft and the Aircraft Carrier and its personnel. To best duplicate or approximate reality, it is often said by the Navy that FCLP training procedures should occur from a 600' patterned altitude. As applied to and EA-18G preparing for a carrier landing, I suspect that the plane at some point will have completed a mission at some level other than 600'. But I can see that a consistent 600' altitude might have more to do with holding to a quick or even up-tempo pace when multiple EA-18G's are engaged in FCLP's during the same session. I don't think 600' is a parametrically necessary altitude for the Growler aircraft to perform its mission and land on an aircraft carrier, as inferred by the Navy.

In any event, back to Virginia. Noise levels at both NAS Oceana and NALF Fentress caused FCLP procedures to be raised or increased to 1000 feet and 800 feet, respectively. The increase in altitude for FCLP's is said decrease an element of realism in contrast to actual landings aboard aircraft carriers at sea, but would also decrease noise exported by the aircraft to civilians and military personnel below the flight tracks used for the FCLP's (why cannot altitudes be similarly raised at OLFC?). The Navy thereafter launched an effort to identify a new remote outlying field for FCLP training at a potential cost of $40 to $115 million dollars, to eliminate these operational impacts (See Military Aviation and the Environment: Historical Trends and Comparison to Civil Aviation). Initially, the Navy developed plans to locate a new landing field for FCLP in Washington County, N.C., but ran into legal challenges and expanded the search to five other sites, three in Virginia, in Southampton, Surry, and Sussex counties, and two in North Carolina, in Camden and Gates Counties. That plan was later dropped to the delight of the local communities and politicians (See Association of Naval Squadron, Hampton Roads Squadron, For Now, Navy Cancels Search For outlying Landing Field, November 20, 2013).

One issue regarding using OLFC for FLCP operations is that there is very little interaction between the civilians living within the contours drawn for OLFC and the Navy community. Economic or social (See Section 3 and 4, My Comments). Thus, it is accurate to say that the civilian population that lives within the noise contours for EA-18G Growlers and their FCLP's get the noise, thereby shouldering the most unpleasant part of the Navy's insistent use of the OLFC that, originally, was designed to

be nothing more than a temporary landing strip. Nothing more. Indeed, its length is significantly shorter than standard length for an EA-18G Growler, that add risk factors to the civilians homes that are within the "conceptual APZ's" (I think that term is a reference to the APZ's that exist in reality but not on paper) that apparently don't matter. Until or unless you live with noise coming from Growlers engaged in FCLPs, you simply cannot have a basis for understanding the adverse impacts. At least on most, normal people.

Here's another Navy risk factor. I guess it is a risk factor perceived by the Navy, but I won't comment upon its motives. What I am broaching, as a topic, is that now, OLFC is fortified by unsightly, unimaginative bare-concrete blocks (each approximately 3' x 3' x 6') tethered one to the next one by a steel cable and creating a "concrete-block-ring" around OLFC. There are hundreds upon hundreds of concrete blocks. As you drive down the State Highway 20, adjacent to OLFC, or along Patmore Drive, or down Keystone Hill, both also adjacent to OLFC, that concrete-block ring is the first thing Tourists and Visitors notice about OLFC. In contrast, around much of the NAS Whidbey complex, there is a lot of fencing of hog wire with a little barbed wire, and metal stakes. With signs saying something like "Keep Out. Property of the United States." Around OLFC, someone in the Navy decided that fortification of OLFC by approximately 2,000-pound concrete blocks is necessary? The cost (maybe $5,000,000 - $7,000,000) of installing that ring was an essential expenditure of taxpayer money? Who does it keep out? Is OLFC in need of stronger protection than the NAS Whidbey and Ault Field? Excuse me for venting, but absent some terrorist plot, I consider the damn thing a visual in-your-face insult to my community, and I have never once been an activist, other than when I took on my kids' school district's poor performance in about 1980. And won. By fighting a PR battle. But maybe an Army of Activists, motivated by a strong sense of being wronged, disregarded, and abused, is what is needed regarding FCLP operations at OLFC. There are Alternatives (See, for example, Section 6, Alternatives for OLF Coupeville, My Comments).

Further, if you consider that noise generated as a result of FCLP's is the worst kind of noise generated on Whidbey Island, causing literal pain at times when the planes are at low altitude and directly overhead, coupled with the knowledge that Growler noise is a burden imposed upon civilians without the Navy having completed or finalized an EIS even for the predecessor aircraft to the Growler, namely, the EA6B Prowler, or the transition of the Prowler to the Growler (although drafts were prepared in 2005 and 2012, but without responding or reacting to public comments, at least publicly), a question arises. Should the Navy be entrusted with the duty to comply with Federal Law and regulations designed to among other things look out for and consider the best interests of the communities in which they are located, when making decisions regarding bringing in more noise? My personal view is that a Subcommittee of the Senate Armed Services Committee, or the Congressional Oversight Committee would be amazed at the proposals sought by the Navy to be unilaterally imposed on a civilian community (Coupeville and its Environs) having mere scant connections to the Navy. And for Coupeville, having the Tourist Element of their economy subjected to being destroyed by more noise, without any analysis of that issue in the DEIS.

The methodology chosen by the Navy to calculate noise is generally misunderstood, perhaps even by the Navy, and understates the full impact of noise on the lives of people who bear the burden of living with it. The Navy uses and defends the use of the Day-Night average sound level (known as DNL) and declares that it is the federal standard for determining community noise impacts. The Navy explains that the DNL is used to determine long-term community noise noise and land-use compatibility and that it is a 24-hour cumulative noise metric. They don't tell you that they could but choose not to exclude any quiet hours from calculating that 24-hour metic. By using the entire 24-hour period, the noise that generates public complaints and health concerns is diminished and the health threats are, accordingly, understated. Consider, if you will, two aspects of the Navy's noise calculations. The Navy includes the "quiet time" of the night as well as the "noise" from the days when FCLP's are NOT performed (that would be zero Growler noise for those times and days) in reaching their very diluted DNL. Consider how much no-Growler-noise-at-all time a 24-hour, 365 day per year, metric includes. Averaging 45 FCLP-flying days into 365 day year includes 12% of the year days involving Growler flights and 88% of the year when they are not flying. It isn't the 88% that causes hearing losses, it is the 12%, but the actual noise exposure is hidden from view. But not from our ears. Thus, individual noise events should be expected to be significantly louder than 60 dB during FCLP operations. But, remember that by referring to the 60 dB contour line, it makes it possible to say that living in a 60 dB contour is not so bad. However, in contrast, living below a Growler flying at less than 500' and at under 200 knots of airspeed into a head wind and completing a left-turn directly overhead can be the closest thing to a noise hell that exists on this Earth. It truly is unworldly. It is the loudest exposure of any flying aircraft. It is intolerable. To me, I hear a Navy voice that is saying " enjoy it and if you can't, get in your car and leave your property until we are finished. We don't care." The private contractor the Navy hired to assist in preparing the DEIS has stated "Potential Hearing Loss (PHL) applies to people living long-term (40 or more years) outdoors in high noise environments (Wyle Laboratories, Draft WR 16-02, Aircraft Noise Study for NAS Whidbey Island Complex, Washington, Page A-23 and repeated elsewhere).

For predicting levels of "community annoyance" around airports, the 24-hour average DNL is useful, especially around commercial airports. In commercial airports scenarios, the 24-hour average DNL has been said to be very relevant primarily because commercial airports generally operate much of a 24-hour day and 7 days per week and 365 days per year. For measuring FCLP operations, it becomes bastardized because of the "intermittent" aspects of FCLP operations. FCLP operations are not conducted 7-days per week and are not anywhere close to being conducted 365 days per year. The 24-hour average DNL in essence does not reflect that FCLP operations have more zero days than days when there are any flights. But if you wish to minimize actual burdens of noise, what better way is there than to use the same procedures utilized for commercial airports. Unless you don't want to be disingenuous. Lastly, let me just point out that in many situations, DNL averages are calculated using only "busy days." But doing so for OLFC FCLP operations would present an average that would reflect reality.

The essential thing to understand in the context of the DEIS, is that DNL numbers do not tell the real impact. When a Growler comes thundering at 400 feet above your backyard, your noise exposure is high enough for Growler Pilots not to live anywhere near your home. Did the Navy tell you not to live where you live? But if you do, what is your noise exposure when a Growler is overhead, and how long is the duration of its dominating presence in your backyard. And it has been happening about 3,050 times each year. Do you really understand that the Navy is willing to increase their presence in the form of a Growler in your backyard by 575 percent. A 575 percent increase of 3,050 is about 17,550. Right now, the Navy claims there are about 45 FCLP operations flying days per year. That would mean a per flying day average currently of 68. If you (we) are subjected to 17,550 FCLP operations over 45 flying days, that would increase the per day average to 390 if you only get half the Touches or half the Go's. If you get all the noise all the time, as is the case with Race Lagoon at OLFC, you get a longer duration of noise for each FCLP, one of the factors that should enter into the DNL calculation for Race Lagoon residents, but apparently is not. Also, if there is other than a 50-50% split in the planned use of Runways 14 and 32, the numbers would be affected by the actual split. Moreover, the other flights that create enormous amounts of noise, including arrivals and departures related to FCLP operations as well as arrivals and departure related to Ault Field operations which involve real-life flights directly over or near OLFC at all sorts of altitudes, would increase the real-life DNL numbers for the vicinity surrounding OLFC.

In an article written by an employee of Wyle Laboratories, hired by the Navy to perform the noise calculations included in the DEIS, Mr. William Albee states that "the use of the Day/Night Average Noise Level (DNL) metric system alone is questioned as being a flawed system for explaining noise exposure to the average citizen," and that "this confusion leads to mistrust and the conclusion that DNL underestimates the noise that many citizens experience." For example in 2009, an outdoor rock concert held at the Virginia Beach Amphitheater was disrupted roughly every five minutes by deafening jet noise. The jet noise was so loud at times that the concert goers complained of not being able to hear the concert. It was reported that even the band was annoyed by the noise.Noise levels by a rock band can reach a range of dB levels from 108 to 114 dB (Federal Inter-Agency Review of Selected Airport NoiseAnalysis Issues, Table B.1, Federal Inter-Agency Committee on Noise (August 1992). The Virginia Beach Amphitheater is located within the 65 dB DNL noise zone approximately 5 miles from Oceana NAS. Even though the 24-hour average noise level is 65 dB, the individual noise events that occurred during the concert as jets flew over was likely higher. High enough to blot out the noise or music of the rock band.

The Navy does, in fact, in its recent brochure announcing the public meeting for the EIS, broach the subject of Sound Exposure Level (SEL), by declaring that it represents "the total noise energy of a single event, such as a flyover, as if it occurred in one second." Then a 30 second SEL is chart is shown. The Navy also provides charts showing in actual decibels (dB's), how loud some familiar items are, such as hair dryers, vacuum cleaners, automobiles, jackhammers, lawn mowers, and numerous other items. It is always a bit of a surprise to see that even a conversation isn't that far in DNL terms from

Growler noise engaged in FCLP operations. My point is that if you compare in decibels familiar items with Growler noise, measured in DNL's there isn't much difference. The real difference, however, is beyond even the noise from a rock concert, as indicated above.

To now present a draft EIS of a plan to increase the noise levels by increasing the number of FCLP operations from the current 6,100 to some other number as high as 35,100 is absurd and unacceptable. So too it should be unacceptable to Congress, if not to any level of command within the Navy. I have included at the end of this Comment a one page document (although it is undated and not fully attributed to an author, it appears to be a legitimate Navy document, and is available for perusal at www.nrac.navy.mil/docs/2009_exec_summary.pdf). Its value for my purposes is that it points out reality in the context of a lack of effort by the Navy to accumulate noise data, the need to consider noise from an engineering focus, the fact that Navy noise is a growing health issue, that there is a need for developing better procedures to monitor noise exposure, to further develop noise abatement procedures to minimize the noise footprint around Naval Air Stations and to more fully research physiological effects of the full spectrum of noise - including low frequency pressure levels, on humans. To me, the Executive Summary reflects the policy that the Navy should deal more with reality than with fiction or ignoring reality as it relates to continuing FCLP operations at OLFC.

If the Navy wants or continues to insist that they want an OLFC where they can perform 35,100 FCLP's, or more, as by providing training to pilots from other countries (Australia has purchased Growlers and Aussie pilots need training, for example, or if they want to purchase more and more EA18G Growlers and move them to Whidbey Island), they should act responsibly as they attempted in Virginia, to find a location elsewhere that will not subject civilians to unbearable and totally absurd and unacceptable noise events.

In preparing to write my comments in response to the request for public comments regarding the DEIS and its 10 proposals, I took a close look at a document prepared by the Naval Audit Service in its Interim Audit Report in Consideration of Hazardous Noise in the Acquisition of the EA-18G Growler, prepared 10-31-2008, (N2009-0008). In that document it is a bit stunning that so little was done in regard to considering the risk of hearing loss upon anyone, much less Civilian Communities subjected to FCLP noise. That was simply never an issue, although there were alarm bells ringing loudly in the minds of those conducting the audit that both Navy and DoD policies had not been fully met. But then again, maybe that's par for this course.

Lastly, while it isn't my place to question the Navy's wisdom of placing all Growlers of the United States at any single NAS, my instincts may be affected by the knowledge of Pearl Harbor and reading and learning about how very few U.S. aircraft were able to be used to engage the enemy on that infamous day we all remember so well. Ault Field is not even in a harbor, although it is on the coastline. I don't even know whether its fortifications are as good as those undertaken at OLFC. But what if some Growlers are needed immediately for legitimate reasons in Florida, or Maryland or Delaware, having

nothing to do with Aircraft Carriers? All I know is that I have lost confidence in the Navy's wisdom in making decisions, primarily because of its intransigence respecting OLFC and Coupeville and its Environs; and the manner in which it has avoided or ignored the mandates in NEPA, that prefer peaceful coexistence and cooperation instead of "what we got".

www.NRAC.Navy.Mil/docs/2009_Exec-Summary.pdf

Executive Summary

This study was initiated to investigate the jet engine noise problem that U.S. Navy and Marine Corps personnel experience on carriers and amphibious assault ships and propose actions to reduce noise in existing and next generation tactical jet aircraft engines.

An overarching finding of this study is the paucity of engineering quality data. Standardized engine noise data to compare the engine noise among different aircraft or among various engines do not exist, and the available data do not correlate Sailor or Marine hearing loss with their respective noise exposure environments. Also, standards do not exist for acquiring engine noise data for tactical aircraft. Although the U.S. Department of Veterans Affairs (VA) is spending over $1 billion per year for hearing loss cases, there are no data to correlate hearing loss claims to flight deck noise exposure. Approximately 28% of the VA hearing loss claims are for the Department of the Navy, but data do not exist on the environment that caused the hearing loss.

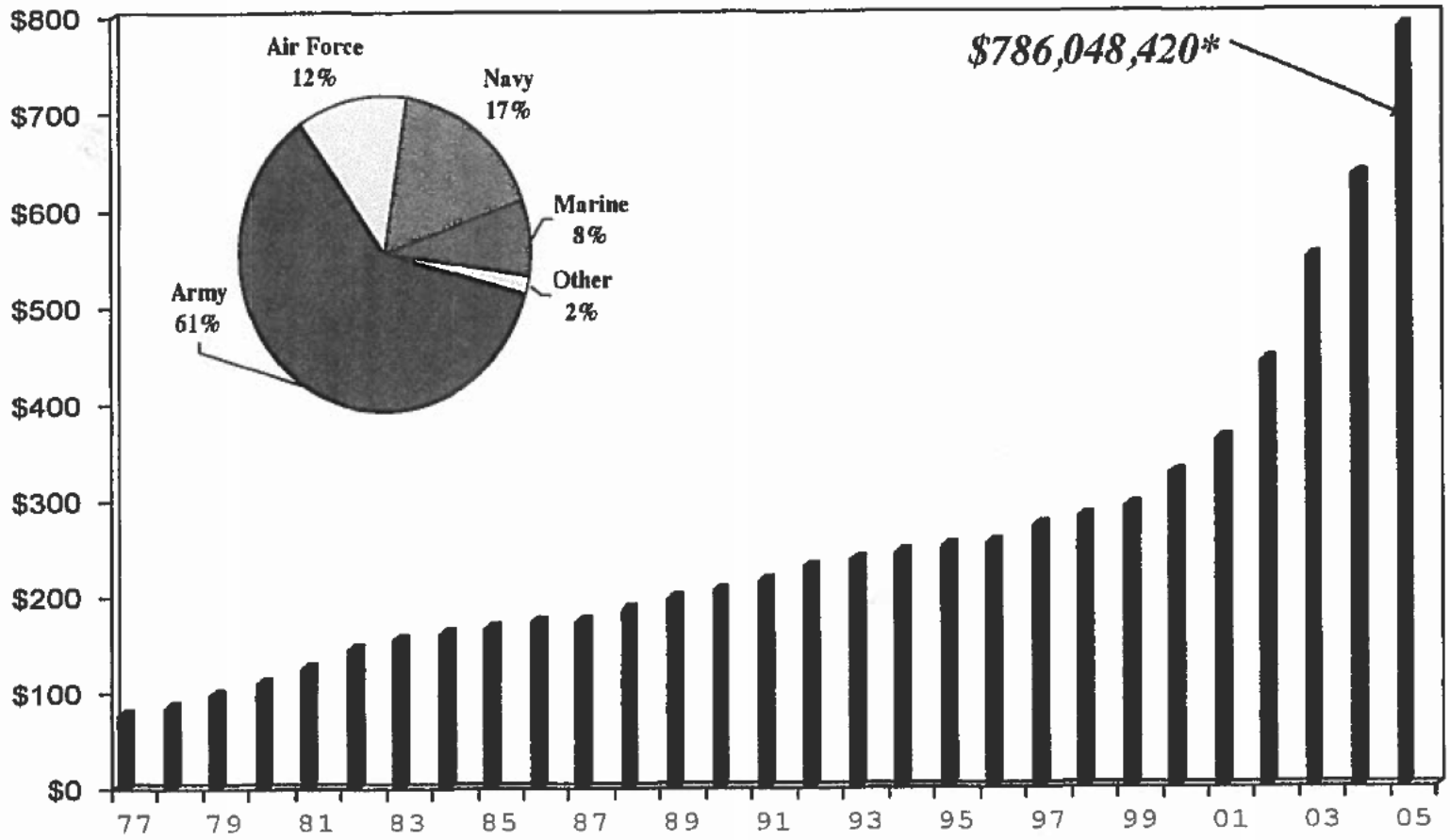
Flight deck noise is a serious health risk. The noise levels on Navy flight decks – up to 150+ dB – exceed the ability of currently available hearing protection to attenuate the noise to safe levels for the time that our personnel are exposed to high noise. On a positive note, significant progress is being made in the development of improved hearing protection equipment, such as the deep insert ear plugs which are undergoing a fleet survey onboard USS Dwight D. Eisenhower (CVN-69). However, without better data on noise exposure, both intensity and duration, for personnel exposed to high noise environments the Navy will either over- or under-estimate individual noise exposure risks, and hence the costs for providing the needed hearing protection

Although the noise levels of commercial jet airliners have been decreasing, the noise levels of tactical jet aircraft have not. In all likelihood, tactical jet noise levels have increased as the velocity and airflow from these engines have increased to produce added thrust. There are exceptions, such as the RA-5C which made its last deployment in 1979, which is reported to have had the highest noise level of any Navy tactical jet aircraft. The Navy has not routinely measured aircraft noise and does not maintain a data base of the noise levels of its aircraft. Only limited measurements of flight deck noise have been documented, and the Panel cannot determine if the noise levels on the flight deck are increasing. There has never been a requirement for a maximum noise level in military aircraft, and today the Department of Defense does not have adequate understanding of supersonic jet engine noise to establish a realistic maximum noise requirement.

There will be no single solution for addressing the jet engine noise problem, but for progress to be made a DOD champion for noise reduction needs to be identified. DOD must identify a senior person who will be a strong advocate to organize and focus the work for jet aircraft noise reduction. The solution will require reducing the source noise of supersonic jet engines which requires a long-term research program to understand the fundamental

mechanics of flow-generated noise. These fundamental mechanics are not well understood today, but when fully understood they should provide insight into new techniques for reducing supersonic jet noise. It will also require continuing investment from the Office of Naval Research (ONR) and OPNAV funding support for the Naval Air Systems Command (NAVAIR) hearing protection programs. It will require finding ways to limit the exposure of flight deck personnel to areas of high noise. It will require the development of better procedures to monitor the noise exposure and hearing loss of personnel. It will require further development of noise abatement procedures to minimize the noise footprint around Naval and Marine Air Stations. And finally, it will require more research into the physiological effects of the full spectrum of noise – including low frequency pressure levels – on humans

Cost Of Hearing Loss For All Veterans
1977-2006 Total = $8,385,892,465*



*Department of Veterans Affairs is paying the bills for noise non-compliance

F/A-18E/F and EA-18G Noise Exposure Risk Acknowledgement

- Current personnel hearing protection devices are inadequate
  - Only operational measures offer near term solutions (e.g., moving carrier flight deck personnel away from jet exhaust)
  - New hearing protection devices offering better noise attenuation becoming available
  - Noise exposure will continue to be an issue for the user community even with the best hearing protective devices and engineering solutions
- Flight line/deck jet noise is a serious ESOH risk for the F/A-18E/F and EA-18G Programs
  - Acknowledgement of risk by Program Executive Office Tactical Aircraft Programs [PEO(T)] and Chief of Naval Air Forces (CNAF) in March 2008
  - PMA265 is participating in projects to minimize personnel exposure to jet noise levels above Occupational Safety and Health Administration and USN standards
  - PMA265 has committed to annually assess the viability of incorporating proven technologies into the F/A-18E/F and EA-18G

OCCUPATIONAL HEALTH & COMMUNITY NOISE ISSUES CANNOT BE IGNORED AND MUST BE ADDRESSED

DOD Noise Standards & Regulations

USN (& USAF) currently <u>not</u> compliant with the following standards:

- DoD Design Criteria Std., MIL-STD-1474D, Noise Limits, page 65, para 4.2.1, Aircraft Noise
- DoDI 6055.12, Hearing Conservation Program
- OPNAVINST 5100.23F, Navy Occupational Safety and Health Program Manual
- NAVMEDCOMINST 6260.5 Occupational Noise Control & Hearing Conservation
- AFOSH STD 48-19, Hazardous Noise Program
- AFOSH STD 161-20, Hearing Conservation Program
- OSHA 29 CFR, Occupational Noise Exposure
- 85 dBA, 8 hrs, 3 dB/doubling exchange rate (*USN until recently was under a 4 dB rate*)

USD 5 Aug 01 Memo, Dr. Gansler to ASN & ASAF: "I request you make investing in hearing protection a ***<u>top</u>*** (S&T) priority...and a Defense Technology Objective"

Naval Audit Service

Interim Audit Report

Consideration of Hazardous Noise in the Acquisition of the F/A-18E/F Super Hornet and EA-18G Growler Strike Fighter Variants

This report contains information exempt from release under the Freedom of Information Act. Exemption (b)(6) applies.

~~*Releasable outside the Department of the Navy only on approval of the Auditor General of the Navy*~~

N2009-0008
31 October 2008

DEPARTMENT OF THE NAVY
NAVAL AUDIT SERVICE
1006 BEATTY PLACE SE
WASHINGTON NAVY YARD DC 20374-5005

7510
N2007-NIA000-0066.003
31 Oct 08

MEMORANDUM FOR ASSISTANT SECRETARY OF THE NAVY (RESEARCH, DEVELOPMENT AND ACQUISITION)
THE F/A-18 STRIKE FIGHTER PROGRAM OFFICE
(PROGRAM MANAGER AIR 265 (PMA265))

Subj: **CONSIDERATION OF HAZARDOUS NOISE IN THE ACQUISITION OF THE F/A-18E/F SUPER HORNET AND EA-18G GROWLER STRIKE FIGHTER VARIANTS (FINAL INTERIM AUDIT REPORT N2009-0008)**

Ref: (a) NAVAUDSVC Memorandum 7510 N2007-NIA000-0066, dated 10 Aug 07
(b) SECNAVINST 7510.7F, "Department of the Navy Internal Audit"

Encl. (1) Status of Recommendations
(2) Scope and Methodology
(3) Pertinent Guidance
(4) Center for Naval Analyses Veterans Hearing Loss Disability Costs
(5) Hearing Protection Suite
(6) Program Executive Officer (Tactical Aircraft Programs) - F/A-18E/F and EA-18G Noise Exposure Risk Acknowledgement
(7) Commander, Naval Air Forces – F/A-18E/F and EA-18G Noise Exposure Risk Acknowledgement (NOTAL)
(8) Appendix: Management Response from PMA265

1. Introduction.

a. This interim report addresses the results of our audit for the F/A-18E/F Super Hornet and EA-18G Growler Strike Fighter variants (F/A-18 aircraft). A senior Department of the Navy (DON) official requested that the Naval Audit Service (NAVAUDSVC) verify that safety and occupational health issues were addressed during the acquisition process of the F/A-18 aircraft through efforts to mitigate the identified noise hazard. We determined that there were opportunities to improve the mitigation of the flight-line/deck jet noise hazard. Details on our F/A-18 audit results are presented in Paragraph 5, "Summary of Audit Results and Conclusions."

b. Program Manager Air 265 (PMA265) responded to the recommendations. Summaries of the management responses, with our comments on the responses, are in paragraph 6. The complete text of the responses is in Enclosure 8.

(i) PMA265 concurred with Recommendations 1 and 3, which are open pending completion of agreed-to actions. Because the target completion date for Recommendation 1 is more than 6 months in the future, we are assigning an interim target date of 30 April 2009. Open recommendations are subject to monitoring in accordance with reference (b). Management should provide a written status report on the recommendations within 30 days after target completion dates.

(ii) PMA265 partially concurred with Recommendation 2; however, we do not feel that PMA265's position meets the intent of the recommendation. Because Naval Air Systems Command (NAVAIR) 1.6 has agreed with PMA265's position on the recommendation, we consider Recommendation 2 to be undecided, and we are elevating it to the Assistant Secretary of the Navy for Research, Development, and Acquisition) (ASN RDA) for action. ASN (RDA) should respond within 30 days indicating concurrence or nonconcurrence with the recommendation.

(iii) Please send all correspondence to the Assistant Auditor General for Installations and Environment Audits, Mr. Ron Booth, at ronnie.booth@navy.mil (phone (202) 433-5551), with a copy to the Director, Policy and Oversight, Vicki.McAdams@navy.mil.

2. Objective. Our objective[1] was to verify that safety and occupational health issues were addressed during the acquisition process of the F/A-18E/F and EA-18G aircraft through efforts to mitigate the identified noise hazard.

3. Background

a. **Consideration of Safety and Occupational Health Issues.** In Military Standard 882D (MIL-STD-882D), Department of Defense Standard Practice for System Safety, dated 10 February 2000, Department of Defense (DoD) stated that, as standard practice, environmental, safety, and occupational health (ESOH) hazard management will be integrated into the systems engineering process for acquisition programs. According to MIL-STD-882D, management of mishap risk associated with actual environmental and health hazards is directly addressed by the system safety approach. The standard defines system safety as the application of engineering and management principles, criteria, and techniques to achieve acceptable mishap risk within the constraints of operational

[1] The original objective was to verify that safety and occupational health issues are addressed during the acquisition process of the F/A-18E/F and EA-18G aircraft. The objective was refined to specify the issue (flight-line/deck jet noise hazard) that was assessed.

effectiveness and suitability, time, and cost, through all phases of the system life cycle. The objective of system safety is to achieve acceptable mishap risk through a systematic approach of hazard analysis, risk assessment, and risk management.

b. **Noise Hazard to Flight Deck Personnel.** Steady-state noise is defined in Military Handbook-1908B, dated 16 August 1999, as periodic or random variation in atmospheric pressure at audible frequencies. Steady-state noise may be continuous, intermittent, or fluctuating, and have a duration exceeding one second. According to Office of the Chief of Naval Operations (OPNAVINST) 5100.23G, dated 30 December 2005, potentially hazardous noise exposure to personnel occurs in areas where noise levels exceed 84 decibels (dBs). According to a Naval Air Warfare Center Technical Report, "U.S. Navy Flight Deck Hearing Protection Use Trends: Survey Results," dated 18 May 2006, legacy military aircraft, such as the F-16 and F-22, produce about 130-150 dBs. The report stated that aircraft carrier flight deck personnel work in close proximity to high-level aircraft engine noise for extended periods of time. It further reported that a typical busy day for flight deck personnel is approximately 60 aircraft launches and recoveries, and that flight deck personnel are exposed to 20-30 seconds of maximum power aircraft noise during each aircraft launch and 3 seconds during recovery. PMA265 representatives stated that many flight-deck personnel exceed total daily exposure limits in approximately one launch while wearing hearing protection that provides 30 dBs attenuation. According to Naval Safety Center representatives, continuous exposure to these hazardous noise levels reportedly leads to hearing loss among sailors. Furthermore, the Center for Naval Analyses reflected in their report that from 1996 to 2005 total Navy and Marine Corps veterans' disability costs associated with hearing loss from various exposures have steadily increased. The cost in 2005 was approximately $200.7 million (see Enclosure 4) for DON.[2]

c. **The F/A-18E/F Super Hornet and EA-18G Growler Strike Fighter Variants.** According to the F/A-18E/F and EA-18G Programmatic Environment, Safety, and Occupational Health Evaluation (PESHE),[3] dated March 2007, the F/A-18E (single seat)/F/A-18F (dual seat) variant is the third variant to the F/A-18 aircraft, managed by NAVAIR, PMA265. It is a high-performance, twin engine, mid-wing, multi-mission, tactical aircraft designed to replace the F/A-18C (single seat), F/A-18D (dual seat), A-6E, and F-14 aircraft. The F/A-18E/F variant is fielded and in the Operations and Support (O&S) phase of the acquisition cycle. According to DoD Instruction (DoDI) 5000.2,

[2] Of the approximately $772 million in veteran hearing loss disability costs in 2005, the breakdown between the Services was approximately 61.5 percent Army, 18 percent Navy, 12.5 percent Air Force, and 8 percent Marine Corps.

[3] The document has three objectives: (1) to summarize the current status of the ESOH program, actions, and initiatives being undertaken by the F/A-18E/F and EA-18G Programs; (2) to formally identify ESOH issues that require near-term resolutions; and (3) to provide a roadmap for embedding ESOH into the program throughout its life cycle. According to SECNAVIST 5000.2C, the PESHE should include ESOH risks, a strategy for integrating responsibilities, a method for tracking progress, and a schedule for National Environmental Policy Act (NEPA) compliance.

dated 12 May 2003, the objective of the O&S phase is to execute a support program that meets operation support performance requirements and sustains the system in the most cost-effective manner over its total life cycle. This is the last phase of the acquisition cycle and will terminate with system disposal at the end of the useful life.

d. According to the PESHE, the EA-18G variant will be the fourth major variant of the F/A-18 aircraft and will serve as the Navy's replacement for the aging fleet of carrier-based EA-6Bs. The EA-18G platform is a modified version of the F/A-18F platform equipped with weapon system upgrades and is being acquired through the Spiral Development acquisition process. According to DoDI 5000.2, Spiral Development occurs when a desired capability is identified, but the end-state requirements are not known at program initiation. According to the F/A-18 PESHE, the EA-18G Program is currently in Low-Rate Initial Production (LRIP) (Production and Deployment Acquisition Phase), which is beyond System Design and Demonstration (SDD) phase. DoDI 5000.2 states that LRIP should result in adequate and efficient manufacturing capability to produce the minimum quantity of units necessary for Initial Operational Test and Evaluation (IOT&E). Upon successful completion of operational testing, the next phase of the acquisition cycle will be full-rate production.

e. **Meetings.** We briefed our audit results to PMA265 management on 11 June 2008. In addition, we briefed our audit results to the following customers/stakeholders:

- Deputy Assistant Secretary of the Navy (DASN) for Research, Development and Acquisition (RDA) for Air Programs representatives – 19 March 2008;
- DASN for Safety (DASN(S)) – 8 May 2008;
- Director Air Warfare (N88) representatives – 25 March 2008;
- Fleet representatives from Fleet Forces Command, U.S. Pacific Fleet, Naval Air Forces Safety, and Commander, Naval Air Forces – 9 April 2008; and
- Naval Safety Center representatives – 9 April 2008.

f. We provided a discussion draft to PMA265 representatives on 16 July 2008 and received comments on 24 July 2008. There were no significant problems that needed to be addressed during the audit.

4. Noteworthy Accomplishment. PMA265 was involved in the efforts of other organizations (Office of Naval Research (ONR) and various universities) to identify and/or develop design solutions to the jet noise hazard. Specifically, PMA265 provided direct support in the form of aircraft, fuel, and personnel to conduct F/A-18E/F aircraft flyover noise footprints, which were used to establish a baseline for noise exposures. According to PMA265 representatives, if future modifications are made, PMA265 will be

able to accurately measure the reduction in noise levels. Based on documentation reviewed, PMA265 provided two F/A-18C/D engines (F404-400 engine) to ONR in 2004 for testing of potential design solution noise mitigation initiatives. PMA265 also requested funding in Fiscal Year (FY) 2008 through the Rapid Technology Transition (RTT) Program, sponsored by ONR, to demonstrate and validate noise reduction technology specific to the F/A-18 E/F and E/A-18G engine. According to PMA265 representatives, ONR has approved this request and, once PMA265 obtains confirmation from N88 and end-user operational commanders through Memoranda of Agreement (MOA), funding will become available in FY 2009.

5. Summary of Audit Results and Conclusions

a. According to PMA265 representatives, the F/A-18E/F aircraft emits, and the EA-18G will emit, a maximum of 150 dBs, which is well above the noise level considered hazardous to hearing (greater than 84 dBs). According to PMA265, they made no initial attempts to mitigate the flight-line/deck jet noise hazard through design selection. This is contrary to the system safety design order of precedence specified in the MIL-STD-882D. Test results indicate that new technology hearing protection devices will reduce noise exposure on the flight deck by at least 43 dBs; however, this is still above the level considered hazardous to hearing. A professional audiologist further validated that a hazard will continue to exist even with the improved hearing protection. We also found that PMA265:

- Appropriately maintained a Risk Assessment Code (RAC) of "Serious-Undesirable" associated with the flight-line/deck jet noise hazard; however, they established risk levels (Risk Assessment Matrix) and risk acceptance authority levels that did not comply with required guidance; and

- Did not maintain a current log of mitigation efforts associated with the flight-line/deck jet noise hazard.

b. **System Safety Design Order of Precedence.** To determine if PMA265 followed the system safety design order of precedence requirements, as outlined in Table A, we conducted meetings with PMA265 ESOH representatives, and obtained and reviewed the following documentation:

- F/A-18E/F and EA-18G Operation Requirements Document (ORD) to determine if jet noise was identified as a specific concern area or contained noise threshold requirements as Key Performance Parameters (KPPs);
- The F/A-18E/F and EA-18G Acquisition Strategy;
- The F/A-18E/F and EA-18G Contract Statement of Work;

- ONR jet noise reduction briefings, itineraries, results, and reports of noise mitigation studies to determine PMA265's involvement in these ONR efforts; and
- E-mail correspondence to and from PMA265 representatives regarding jet noise efforts during the design and development of the aircraft.

c. Based on our review of the above documentation and discussions with PMA265 representatives, we found that PMA265 did not follow the system safety design order of precedence for mitigating the flight-line/deck jet noise hazard, as required by MIL-STD-882D, Section 4.4; and F/A-18's own System Safety Program Plan, Section 1.4 and 3.2.2. We also found that there was no mention of noise limitations in the F/A-18E/F and EA-18G acquisition strategy and contract Statement of Work. PMA265 provided an e-mail verifying that they did not initially attempt to mitigate the flight-line/deck jet noise hazard through design selection, nor another method, during the design and development of the F/A-18E/F and EA-18G aircraft. Table A lists each criterion and its requirements.

SECTION 13.

GROWLER NOISE AND COMMUNITY HEALTH

The DEIS, in the context of considering the distinct possibility, indeed probability, that Growler Noise, including existing single noise events as well as the cumulative impact of noise exposure from frequent Growler FCLP operations, coupled with primarily Growler noise from overflights of Aircraft engaged in flying to scheduled activities elsewhere or returning to NAS Whidbey where the flight tracks of those overflights are directly over the OLFC, is a contributing factor to the health of the civilian population that lives below is little more than an embarrassment of gobbledegook. It is nothing more than a whitewash seemingly designed to facilitate reaching a decision of "No Significant Impact" for whichever proposal is selected and imposed by the Navy.

For each of the Alternatives proposed by the DEIS, a single paragraph is devoted to the "Nonauditory Health Effects." Let me quote the paragraph attendant to Alternative 1, and you need not refer to the paragraph for the other Alternatives. It reads the same except the "1" is replaced by a "2" or a "3":

"Nonauditory Health Effects"
"Per studies noted and evaluated in Section 3.2.3 [entitled "Noise Effects"], the data and research are **inconclusive** with respect to the linkage between potential nonauditory health effects of aircraft noise exposure. As outlined within the analysis of DNL contours and supplemental metrics presented within this section, the data show that the Proposed Action would result in both an increase in the number of people exposed to noise as well as those individuals exposed to higher levels of noise. However, research conducted to date has **not made a definitive connection** between intermittent military aircraft noise and nonauditory health effects. The results of most cited studies are **inconclusive and cannot identify a causal link** between aircraft noise exposure and the various type of nonauditory health effects that were studied, **An individual's health is greatly influenced by many factors known to cause health issues, such as hereditary factors, medical history, and life style choices regarding smoking, diet, and exercise. Research has demonstrated that these factors have a larger and more direct effect on a person's health than aircraft noise."**

That is an unbelievable statement coming from an entity of government charged with protecting our homeland and its citizens, including civilians who live in the vicinity of Coupeville, indeed who live on Whidbey Island, not to mention military personnel and their families. It reads in contradistinction to the experiences of military personnel who have sought and received treatment for excessive noise exposure while on active duty. Essentially, the quoted paragraph disregards the studies that already exist, showing that there are adverse impacts on human health other than auditory health. How can the Navy not even acknowledge that there is at least a "potential" for a relevant correlation. Is it because that might preclude justly reaching a future finding of "No Significant Impact" for any of the proposals contained in the DEIS?

Further, the reference at the beginning of the paragraph quoted above references "studies noted and evaluated in Section 3.2.3." A reading of Section 3.2.3 reveals over a dozen references to statements or partial quotes regarding noise in the context of annoyance, speech interference, classroom/learning interference, sleep disturbance, potential noise effects on recreation, potential hearing loss, non-auditory health effects, and vibrations from aircraft operations. The

quoted paragraph then characterizes the studies in the following words: "inconclusive data and research, no definitive connection between "intermittent" noise and health, studies are inconclusive, and that factors other than noise have a "larger and more direct effect." Those words, if permitted by the Navy leadership to carry the day, the Navy in my opinion one day will rue them. Bigly. The effect of those words is to say that, notwithstanding any and all objective studies conducted to date, the burden of proof is upon the people who today may continue to be damaged and injured by actions of the Navy, and that the Navy has no interest in listening or learning or studying any possibility to the contrary.

It also shows that, because of this Navy intransigence in the face of mounting evidence to a contrary position, it is difficult if not impossible to have any faith or confidence in the Navy to make the right choice or do the right thing regarding any aspect of the continued Navy use of OLFC.

The position of the Navy disregards all evidence and research, subjective and objective, that increasing the number of FCLP's at OLFC from 6,100 to as many as 35,100 per year will NOT affect some children, mothers, fathers and others.

For the Navy not to even admit there is a possibility that conducting FCLP operations at OLFC under the present levels of 6,100 FCLP operations per year, nor by increasing those levels by a factor of about 5.75, might have adverse health impacts, is to cast a deep and dark shadow upon the leadership of the Navy that should be made known on a widespread basis to both the public and to federal and state elected officials. That is a position that lives in contradistinction to a different story presently unfolding regarding the effects on some peoples' health of living and working around gross and horrific noise conditions. All of us deserve and should demand that due consideration be acknowledged, planned, and given to the health and welfare of all the people who live in the vicinity of OLFC as well as the military personnel and civilians who live near NAS Whidbey even for the present levels of FCLP operations conducted on Whidbey Island.

My own personal experience with High Blood Pressure is one subjective example of a probable connection between living near OLFC and the onset of high blood pressure. I have undergone an annual physical examination I believe for each of the last 30 years and my blood pressure has been measured many dozens of times in many differing situations. My record reveals that prior to moving to Whidbey Island, I never was in need of medication to control or lower my blood pressure. A few years after moving to Whidbey Island, I was diagnosed as being in need of medication for blood pressure, notwithstanding that I have lived on Whidbey Island a near storybook life of relative and selective seclusion. Building a world class garden for my wife and I to enjoy. In that, I believe I have succeeded. I will be the first to admit that the impact of aging likely is a contributing factor to an increase in high blood pressure events. However, I also will swear, under oath, that during periods when FCLPs are undertaken at OLFC, those are the only periods of time when I feel a sense of helplessness to combat anxiety, anger, rage, and a slow burning seething of knowing that the honorable United States Navy doesn't want a true delineation of factual reality, it simply wants to complete a superficial, understated response to a Federal requirement to prepare an assessment of the impact of a Navy plan that already has been approved in concept if not in particulars and then make a finding of "No Significant Impact" upon my life and those of the many of us who live below the noise generated by Growlers. Further, it is documented that when I leave Whidbey Island (I sometimes spend a few weeks each year year in Hawaii), my blood pressure after a few days returns to normal levels. Even

during periods when FCLP operations are not prevalent at OLFC, I seem to have lower high blood pressure events. I mention my own personal history in this regard not to seek sympathy or empathy but merely to indicate that continued intransigence on the part of the Navy, as by refusing to acknowledge the obvious, is slowly being exposed as unconscionable and calloused, and in defiance of the real world in which peoples' lives are being adversely impacted by Growler FCLP landing noise, at least in the context of OLFC.

One other aspect of the Navy's "No Significant Impact" position on the conduct of FCLP operations at OLFC bears discussion. It is true and undeniable that, considering only the computer-generated modeling upon which the DEIS clearly is based, that no one can measure adverse impact on land, buildings, animals, or people. But to conclude that because medical, health and other areas of study do not definitively conclude that damages and adverse impacts are measurable is not a justifiable or logical basis to conclude that there is no damage or adverse impact. For example, no one can predict with certainty whether any one person will succumb to the ill effects of influenza or a virus-induced nasal or respiratory infection. Some people whose immunity systems are strong may well not become a victim this year to a cold or the flu. Some of those same people next year may well become victims to the same or similar diseases. The fact is, however, that some people fall victim to colds and the flu and some do not. However, using Navy logic, there is no clear linkage or convincing connection between presence on any Navy base and catching a cold or the flu, and that, therefore, there is no need to have good hygiene in terms of cleanliness on a NAS.

My point is that the fact that "causation" is not fully known, or that personal susceptibility is not fully known, does not mean there is no causal connection between aircraft noise, especially the concentrated nature of FCLP noise, and health issues that may shorten people's lives or adversely impact their ability to live a good life. Further, in the context of children, some kids are susceptible to or actually may be diagnosed as having Attention Deficit Disorders (ADD), and one consequence of such a diagnosis may be inability of a child with ADD to focus or stay on task during school. To say that "intermittent" interruptions or distractions inherent in FCLP Growler noise is not a "Significant Adverse Impact" is to defy common sense and basic logic. Those impacts certainly are worthy of consideration by the Navy before the episodes of interruption and distraction are increased by a factor of up to 5.75. The lives of all children are significant and should not continue to be ignored and disregarded by the Navy and its continued use of OLFC.

Consider the data NOT included in the DEIS. While there is a Table that shows for each POI the "Maximum Sound Exposure Level and Maximum Sound Level for the POI's it doesn't project those levels for the FCLP's contemplated by each of the 9 proposals. Instead, the DEIS gives us the actual number of times that the projected maximum SEL is reached per year. A range, including all FCLP's in a year would seem to be a good thing to know if you want to assess the annual, monthly or daily exposure levels and compare those with the limits set by OSHA and NIOSH. Of course, that would depend upon the number of FCLP's projected to use Runway 14 and 32 at OLFC, on each flying day as well as the number of flying days projected, as well as the overflights of arrivals and departures from Ault Field that entail flying over OLFC, and as well as arrivals and departures from OLFC FCLP closed loop patterns.

The DEIS also indicates the number of people at OLFC who are estimated at risk for hearing loss (See, for example, Table 6-8a for Alternative 1, Scenario A). But there is nothing to suggest where those projected people live, work or lie in a bed at the Whidbey General Hospital. It tells

you how many people there are within each Leq 24 band, but it doesn't tell you how to convert those band numbers to DNL contours or where those numbers are on the contour maps. I expect that its only real value is to provide a basis for claiming that the number of people isn't very large. But if past practice is tomorrow's guidance it will be used by the Navy only for defensive purposes, as if we are talking about a game. A game with civilians' lives.

I would like to provide my perspective and analysis regarding health issues, because those are important. While I have children, grandchildren and great grandchildren, none live anywhere close to Whidbey Island. But I care about people on Whidbey Island who live around OLFC. I care about the pregnant mothers with their unborn fetuses with developing ears, and I care about kids playing softball or soccer outside and below FCLP flight paths, and I care about all the people, many retired, who have developed a love of gardens and gardening whose hearing already has suffered, notwithstanding the Navy's mantra that hearing losses won't occur without 40-years of Growler noise.

I strongly believe the Navy does not care, not because they are cold and calloused individuals, but because the information in the DEIS facilitates a finding of not much impact ever, anywhere, while discrediting a private study finding that the Navy projections fall short of reality and notwithstanding a second private study that apparently validates the first study's integrity. My ultimate conclusion is that if those of us disheartened by Navy internal politics and their DEIS's really care, we must take the fight into the public arena of politics and policy at the state and national levels. There is a right side and a wrong side to continued use of OLFC, and I believe the Navy cannot be trusted to do the right thing and find a permanent solution to safeguard the people's rights to enjoy life in the manner contemplated by NEPA and the Constitution of the United States of America. It is up to us, here on Whidbey Island, to assist the Navy in doing the right thing. The Navy has a voice but cannot hear.

A replacement location for a new OLF is the only answer that avoids considerable adverse impacts on many if not most all of us civilians who live in the vicinity of OLFC. Further, the existing level of FCLP operations at OLFC has never adequately considered any adverse impacts on the health of the civilians who live with Growler noise and impacts; and those impacts could be avoided with a little Navy leadership to find an alternative site for FCLP operations and activities.

There is a study of Aircraft noise at OLFC during FCLP operations, secured by Citizens Of Ebey Reserve (hereafter COER) and performed by JGL Acoustics Hereafter JGL). JGL took actual measurements from five locations near OLFC during Growler flights that utilized Runway 32 in the performance of FCLPs in 2013. The JGL Noise Study referenced above revealed that the projections in a computer modeled program forming the data for the analysis of the Navy and of Wyle Laboratories set forth in the DEIS understated the true, actual noise levels.

It is noteworthy that I am unable to find a single reference to a study secured by the Navy utilizing actual recorded measurements, or verifying its earlier projections. If follows that there is no preserved data upon which to build a library that might be useful, if referencing actual facts ever becomes a noble course of action. In fact, there are references in writings to actual measurements taken by the United States Air Force in the context of noise generated by Air Force aircraft. In the context of OLFC, actual measurements might show that the projections of noise at OLFC by the Navy are too high or too low. Wouldn't it be useful, educational, and

revealing to test the relative accuracy of the Navy's projections? What possibly might be the rationale behind the policy of the Navy's disinclination to using actual measurements?

But there is an enormous amount of information, alarming information, that noise is dangerous not just to a person's hearing. The Centers for Disease Control and Prevention, on February 8, 2016, posted an article entitled "Understanding Noise Exposure Limits: Occupational vs. General Environmental Noise. In regard to non-auditory health effects, the article reads, in part, as follows:

"The most investigated non-auditory health endpoints for noise exposure are perceived disturbance and annoyance, cognitive impairment (mainly in children), sleep disturbance, and cardiovascular health. WHO estimated that in high-income western European countries (population about 340 million people), at least 1 million healthy life-years (disability-adjusted life-years (DALY's)) are lost every year because of environmental noise." "Most of these DALYs can be attributed to noise-induced sleep disturbance and annoyance. DALYs=Disability-adjusted life years."

"Annoyance. Annoyance is the most prevalent community response in a population exposed to environmental noise. Noise annoyance can result from noise interfering with daily activities, feelings, thoughts, sleep, or rest, and might be accompanied by negative responses, such as anger, displeasure, exhaustion, and by stress-related symptoms. In severe forms, it could be thought to affect wellbeing and health, and because of the high number of people affected, annoyance substantially contributes to the burden of disease from environmental noise (figure 2). Investigators have proposed standardised questions about residents' long-term annoyance in their home for use in surveys. Additionally, investigators have gathered substantial data for community annoyance in residents exposed to noise in their home, based on which exposure–response relationships were derived (eg, for wind turbines).These relations can be used in strategic or health impact assessments for estimating long-term annoyance in fairly stable situations. Although the overall community response depends on societal values and is most relevant to the guidance of policy, several personal (eg, age and noise sensitivity) and situational characteristics (eg, dwelling insulation) might affect the individual degree of annoyance."

"**Cardiovascular disease.** Both short-term laboratory studies of human beings and long-term studies of animals have provided biological mechanisms and plausibility for the theory that long-term exposure to environmental noise affects the cardiovascular system and causes manifest diseases (including hypertension, ischaemic heart diseases, and stroke). Acute exposure to different kinds of noise is associated with arousals of the autonomic nervous system and endocrine system. Investigators have repeatedly noted that noise exposure increases systolic and diastolic blood pressure, changes heart rate, and causes the release of stress hormones (including catecholamines and glucocorticoids). The general stress model is the rationale behind these reactions. Potential mechanisms are emotional stress reactions due to perceived discomfort (indirect pathway), and non-conscious physiological stress from interactions between the central auditory system and other regions of the CNS (direct pathway). The direct pathway might be the predominant mechanism in sleeping individuals, even at low noise levels. Chronic exposure can cause an imbalance in an organism's homoeostasis (allostatic load), which affects metabolism and the cardiovascular system, with increases in established cardiovascular disease risk factors such as blood pressure, blood lipid concentrations, blood viscosity, and blood glucose concentrations. These changes increase the risk of hypertension,

arteriosclerosis, and are related to severe events, such as myocardial infarction and stroke. Studies of occupational and environmental epidemiology have shown a higher prevalence and incidence of cardiovascular diseases and mortality in highly noise-exposed groups. The risk estimates for occupational noise at ear-damaging intensities tend to be higher than are those for environmental noise (at lower noise levels). Because of different acoustic characteristics for different noise sources (sound level, frequency spectrum, time course, sound level rise time, and psychoacoustic measures) noise levels from different noise sources cannot be merged into one indicator of decibels. Different exposure–response curves are needed for different noise sources. Meta-analyses were done to quantitatively assess the exposure–response link for transportation noise (exposure to road traffic and aircraft noise) and health effects (hypertension and ischaemic heart diseases, including myocardial infarction). The investigators derived increases in risk of between 7% and 17% per 10 dB increase in equivalent noise level LAeq (figure 3). Their results have been adjusted for known risk factors such as age, sex, socioeconomic status, smoking, body-mass index, and others. The researchers identified sex and age as effect modifiers. Studies of the combined effects of noise and air pollution showed largely independent effects, which can be explained by different mechanisms of how both exposures can affect health (cognitive and autonomic stress response vs inflammatory processes)."

"**Cognitive performance .** WHO estimate that about 45 000 disability-adjusted life-years are lost every year in high-income western European countries for children aged 7–19 years because of environmental noise exposure (figure 2). Postulated mechanisms for noise effects on children's cognition include communication difficulties, impaired attention, increased arousal, learned helplessness, frustration, noise annoyance, and consequences of sleep disturbance on performance.3, 56 Investigators have also suggested psychological stress responses as a mechanism because children are poor at appraising threats from stressors and have less well developed coping strategies than do adults. Areas with high levels of environmental noise are often socially deprived, and children from areas with high social deprivation do worse on tests of cognition than do children not exposed to social deprivation. Therefore, measures of socioeconomic position should be taken into account in the assessment of associations between noise exposure and health and cognition."

"More than 20 studies have shown environmental noise exposure has a negative effect on children's learning outcomes and cognitive performance,57 and that children with chronic aircraft, road traffic, or rail noise exposure at school have poorer reading ability, memory, and performance on national standardised tests than do children who are not exposed to noise at school. Investigators have examined exposure–effect links between noise exposure and cognition to identify the exposure level at which noise effects begin. The RANCH study of 2844 children aged 9–10 years attending 89 schools around Heathrow (London, UK), Schiphol (Amsterdam, the Netherlands), and Madrid-Barajas (Spain) airports showed a linear exposure–effect relation between aircraft noise exposure at school and a child's reading comprehension and recognition memory after adjusting for a range of socioeconomic factors. A LAeq 5 dB increase in aircraft noise exposure was associated with a 2 month delay in reading age in children in the UK and a 1 month delay in those in the Netherlands. These linear associations suggest that there is no threshold for effects and any reduction in noise level at school should improve a child's cognition."

"WHO Community Noise Guidelines63 suggest that the background sound pressure level should not exceed LAeq 35 dB during teaching sessions. Intervention studies and natural experiments have shown that reductions in noise exposure from insulation or the closure of

airports are associated with improvements in cognition, suggesting that noise reduction can eliminate noise effects on cognition."

"**Sleep disturbance.** Sleep disturbance is thought to be the most deleterious non-auditory effect of environmental noise exposure (figure 2), because undisturbed sleep of a sufficient length is needed for daytime alertness and performance, quality of life, and health. Human beings perceive, evaluate, and react to environmental sounds, even while asleep. Maximum sou Sleep and pressure levels as low as LAmax 33 dB can induce physiological reactions during sleep including autonomic, motor, and cortical arousals (eg, tachycardia, body movements, and awakenings). Whether noise will induce arousals depends not only on the number of noise events and their acoustical properties,2 but also on situational moderators (such as momentary sleep stage66) and individual noise susceptibility. Elderly people, children, shift-workers, and people with a pre-existing (sleep) disorder are thought of as at-risk groups for noise-induced sleep disturbance. Repeated noise-induced arousals interfere with sleep quality through changes in sleep structure, which include delayed sleep onset and early awakenings, reduced deep (slow-wave) and rapid eye movement sleep, and an increase in time spent awake and in superficial sleep stages. However, these effects are not specific for noise, and generally less severe than those in clinical sleep disorders such as obstructive sleep apnea. Short-term effects of noise-induced sleep disturbance include impaired mood, subjectively and objectively increased daytime sleepiness, and impaired cognitive performance. Results of epidemiological studies indicate that nocturnal noise exposure might be more relevant for the creation of long-term health outcomes such as cardiovascular disease than is daytime noise exposure, probably because of repeated autonomic arousals that have been shown to habituate to a much lesser degree to noise than other—eg, cortical—arousals.2 In 2009, WHO published the Night Noise Guidelines for Europe, an expert consensus mapping four noise exposure groups to negative health outcomes ranging from no substantial biological effects to increased risk of cardiovascular disease (panel 2). WHO regards average nocturnal noise levels of less than LAeq, outside 55 dB to be an interim goal and 40 dB a long-term goal for the prevention of noise-induced health effects."

"**Conclusion.** "Noise is pervasive in everyday life and can cause both auditory and non-auditory health effects. Noise-induced hearing loss remains highly prevalent in occupational settings, and is increasingly caused by social noise exposure (eg, through personal music players). Our understanding of molecular mechanisms involved in noise-induced hair-cell and nerve damage has substantially increased, and preventive and therapeutic drugs will probably become available within 10 years. Evidence of the non-auditory effects of environmental noise exposure on public health is growing. Observational and experimental studies have shown that noise exposure leads to annoyance, disturbs sleep and causes daytime sleepiness, affects patient outcomes and staff performance in hospitals, increases the occurrence of hypertension and cardiovascular disease, and impairs cognitive performance in schoolchildren. In this Review, we stress the importance of adequate noise prevention and mitigation strategies for public health."

The mountain of evidence is growing. While I cannot vouch 100% for the validity of the enormous data that exists, isn't it better to tread on the side of caution than to expect civilians to follow the Navy's lead and just ignore serious and documented health issues? Is that all we can expect from the United States Navy?

Andrew Carnegie once said "as I grow older, I pay less attention to what men say. I just watch what they do." Actions or intransigence by the Navy do speak to in a far louder voice that the words they chose for the DEIS.

SECTION 14.

NAVY AVIGATION EASEMENTS NEAR OLFC: A BAD OF NAVY LEADERSHIP AND COMMUNITY INTERACTION

An Avigation easement is a property interest that entails the right of overflight in the airspace above or in the vicinity of a particular parcel of lot of real property. It also includes the right to create such noise or other effects as may result from the lawful operation of aircraft in such airspace, absent any limitations of exceptions set forth in the terms of the easement, and the right to remove any obstructions to such overflight. Hence, an avigation easement generally would authorize aircraft approaching an airport or landing strip like OLFC, to fly at low elevations above private property.

Regardless of whether the Navy wants anyone to know about Navy use of avigation easements on Whidbey Island in connection with overflights of private residences at low altitudes in the performance of some level of FCLP operations, the Navy has acquired by the payment of U.S. dollars avigation easements in regard to some number of lots or parcels in Admirals Cove and in property adjacent or close to OLFC. Further, in lawsuits in Federal Courts, the Navy has asserted in multiple cases that it acquired a prescriptive avigation easement by virtue of having flown over private property for considerable lengths of time, and asserted that prescriptive right as a defense in a "takings" lawsuit.

Nonetheless, in Argent v. United States, 124F.3d 1277 (1999), the court acknowledged that changing circumstances, such as faster and noisier aircraft (for example, the EA-18G Growler has both a noisier profile than the Prowler and also emits a low-frequency sound that is more dangerous than the higher frequency emitted by the Prowler; and of course recall that the DEIS is proposing up to 35,100 FCLP operations, a 575 percent increase from the current levels of 6,100), may effect a second, different "taking". While the Navy actually flew more than 6,100 FCLP operations, that excess was the basis of a federal court enjoining the Navy from continuing to perform more than 6,100 FCLP operations per year. The point here is that there likely will be held to be a new "taking" if the FCLP operations are increased in fact to more than 6,100, especially given the Navy's actions relating to establishing the limit of 6,100.

Under state law, an interest in real property is required to be recorded, so as to provide subsequent owners with a basis to be informed of the existence of any encumbrance, lien, easement, or other interest that could affect a new owner's plans for using the property.

It is interesting to note that multiple trips to the Island County Recorder's Office as well as to the Federal District Courthouse in Seattle failed to turn up a single instance of the recordation of an Avigation Easement of the Navy. I became interested in this regard when I was assisting a friend in the purchase of a 26-acre parcel of undeveloped land that is adjacent to the lot upon which my home was constructed following purchase of the lot in 2001. My friend made an offer that was accepted, and he received a Preliminary Policy of Title Insurance that indicated easements, but no Avigation or other Easement owned or held by the Navy. While my friend ultimately decided against consummating the purchase, that property ultimately was purchased by another person who later became a friend. Recently, my wife asked the new owner whether his Title Insurance Policy contained any acknowledgement of the existence of any Avigation or other Easement in favor of the Navy. This inquiry was made subsequent to finding the whereabouts of the prior owner and he presently is living in Florida. He refused to discuss any

aspect of an Avigation Easement. Because we also had obtained a copy of numerous Avigation Easements, including one signed by the guy in Florida (but who formerly lived and worked in Seattle), his refusal piqued my level of interest, which led to finding a bunch of other Avigation Easements and documentary evidence. Including learning that a sum of $750,000 was paid by the United States Navy for a group of those easements. One in particular was to a person who lives near Coupeville. My diplomatic wife went to visit the gentleman in his shop and his reaction was similar to the reaction of a movie actor who is afraid of the mafia. No kidding. He quickly said he could not and would not discuss such a matter with anyone, ever. End of that discussion.

To me, the reaction of both gentlemen suggests that bith have signed Nondisclosure Agreements containing some form of penalty for disclosure in violation of the nondisclosure provision. Or is there another explanation. Well, certainly, no disclosure publicly has been made by the Navy.

There is also some evidence that a representative of the Navy denied in an email the existence of a known Avigation Easement, but that might simply be explained in terms of that person not knowing what she was doing or where to find an accurate answer. On the other hand, maybe she was absolutely correct.

Nonetheless, I find it impossible to accept the distinct possibility that the Navy is hiding something here. I am hereby asking Navy Leadership to divulge publicly both the existence of all Avigation Easements they have acquired by purchase or by prescription, the price paid, and the parcel and street address of all such property situated in Island County Washington. That information does not involve any secrets affecting national security, and could be obtained through the Federal Freedom of Information Act. But it is disconcerting that the Navy paid money for an easement that is a legal interest (indeed, it is an encumbrance upon the property subject to it) as to property, including property owned by a friend who is a lifelong resident on Whidbey Island and a contractor/developer. By not recording it, the Navy deprived my friend, the current owner of the property, that the property was subject to the easement. That likely would have affected the purchase price, or at least his offer. If the Navy had recorded the easement, it would have been set forth in the Title Insurance Policy, the same as all the other encumbrances. Although in some judicial proceedings, the Navy likely could be precluded by a court from asserting its rights under the easement. In terms of the laws relating to "Equity" the Navy cannot benefit from having "dirty hands." I wonder what the CINC of the Navy would have to say about this. At best, it is unseemly, to me.

That isn't the end of the Avigation Easement saga. It gets worser and worser.

Why would the Navy pay some residents for an Avigation Easement and essentially hide it from others? Why would the Navy treat some civilian residents different from the way it treats others? That is a confounding and troubling scenario that should be investigated by the Armed Services Committee of the United States Senate and by the Oversight Committee of the House of Representatives of the United States. Is it unique, or is it the norm? To me, it is a power that should be reined in a bit.

Also, it is troubling to me that the United States Navy would assert as a defense in any trial involving American Citizens in which an unlawful "taking" by the Navy is alleged. The reason it would be alleged is twofold: (1) It would negate the recovery for any claim for a "taking" if the

"taking" occurred more than six years prior to the alleged date of the taking, and (2) it would negate the claim if the "taking" occurred less than six years ago and the allegations refer only to acts that are clearly authorized by the terms of the easement (for example if overflights higher than say 1,000 are permitted under the easement and the Plaintiff could not prove there have been any flights less than 1,000 feet). In my view, it is or should be against public policy (maybe it already is) for the Navy to use technical defenses against Citizens of the United States. The Navy should be held to a higher standard so as to be forced to treat all Citizens equally, even if it is not so inclined.

In the context of "takings" cases, the United States Constitution prohibits the taking of private property for public use without just compensation, and declares that no person shall be deprived of property without Due Process of Law (Fifth Amendment, United States Constitution). Cases of the United States Supreme Court, in regard to the necessity of Due Process, have imposed certain substantive and procedural requirements before any deprivation of property is imposed. While a statute of limitations serves the public policy of requiring actions for remedies to be initiated prior to the expiration of a prescribed period of time (for example, a 3-year period of time in which to seek a judicial remedy for a breach of contract, which serves as a reasonable period of time after which the uncertainty of having a possible lawsuit for an unlimited period of time, as well as avoiding the shadow of uncertainty as to the enforceability of contracts upon conduct of commerce) is outweighed by the need for certainty to prevail in contractual disputes. The nature of that policy does not apply to a complex situation involving thousands of lots and homes in the vicinity of OLFC, especially where the Navy has apparently been hiding the fact of Avigation Easements and its selective use of taxpayer dollars to purchase a few such easements, quietly.

Maybe I expect too much from the Navy, but they should do better than their past record suggests. Perhaps, the best solution will be to seek an Amendment to some appropriations bill for Navy expenditures to extend the right to sue the Navy for a "taking" of real property, within the protections of the Fifth Amendment to the United States Constitution, for 50 years, and to negate any prior use of a statute of limitations in "taking" by Aircraft noise cases already concluded. Citizens of the United States deserve to be, and should be, treated reasonably by the Navy.

It is worth noting that the assertion of an affirmative defense in any case, including a defense based upon the expiration of a period of time set forth in a statute of limitations, doesn't mean the underlying cause of action isn't valid or worthy. It merely means that the sought after remedy is no longer available, but only if the statute of limitations is asserted as a defense. If it is not asserted, the trial will continue. In part, the assertion by the Navy of a statute of limitations in a case involving an alleged "taking" in violation of the Fifth Amendment in the context of FCLP operations at OLFC, where it is shown that the Navy has dirtied it's hands by hiding the existence of easements would be to reward the Navy for bad behavior that flies in the face of the mandates and requirements of NEPA. In other words, it would seem to me to violate a basic consideration of knowing the difference between right and wrong.

SECTION 15.

NOISE ABATEMENT

The DEIS includes what is no doubt a long-standing policy statement regarding training and operational flights over local communities, including the numerous distinct neighborhoods that literally surround OLFC. That policy statement, which is repeated several times in the DEIS, reads as follows: "It is Commanding Officer, NAS Whidbey Island policy to conduct required training and operational flights with as minimal impact as possible, including noise, on surrounding communities. All aircrews using" . . . [various Navy facilities, including OLFC] "are responsible for the safe conduct of their mission while complying with published course rules, established noise-abatement procedures, and good common sense. Each aircrew must be familiar with the noise profiles of its aircraft and is expected to minimize noise impacts without compromising operational and safety requirements." (see, for example, Sec. 4.2.5, Vol. 1., DEIS). Specific noise-abatement procedures and policy are outlined in Section 3.2. Similar or identical statements of the Commanding Officer, NAS Whidbey, are included in several other areas of the overwhelmingly large DEIS. If there exists a Navy policy to provide an enormous amount of information in a repetitive fashion for each of the **10 different scenarios,** then the DEIS is an overwhelming success. But I digress.

Section 4.2.5 reflects the same policy in considering each of the three Scenarios under Alternative 1, and clarifies what is NAS Whidbey Island, by expressly indicating that the "noise Abatement Policy applies to all aircrews using Ault Field, OLF Coupeville, Naval Weapons System Training Facility Boardman, and the numerous northwest instrument and visual training routes (IR/VR) throughout the Pacific Northwest. Additionally, the policy states that "aircrews are directed, to the maximum extent practicable, to employ prudent airmanship techniques to reduce aircraft noise impacts. Examples of noise-abatement procedures in the NAS Whidbey Island Air Operations Manual (NASWHIDBEYINST 3710.7Z, dated March 9, 2015, include all of the following:

"• Aircrews shall, to the maximum extent possible, employ prudent airmanship techniques to reduce aircraft noise impacts and to avoid noise-sensitive areas except when being vectored by radar ATC or specifically directed by the control tower.
• Sunday Operations: From 7:30 a.m. to noon local on Sundays, noise-abatement procedures require arrivals, except scheduled FCLP/CCA aircraft, VR-61 drilling reservists, and VP-69 drilling reservists, to make full-stop landings.
• Due to noise-abatement procedures, high-power turn-ups should not be conducted prior to noon on Sundays or between the hours of 10:00 p.m. to 7:30 a.m. for jets and midnight to 7:30 a.m. for turboprops. For specific operational necessity requirements, defined as preparation for missions other than routine local training and functional check flights terminating at NAS Whidbey Island, high-power turn-ups may be authorized outside these established hours.
• Wind component and traffic permitting, morning departures prior to 8:00 a.m. shall use Runway 25, and evening arrivals after 10:00 p.m. shall use Runway 7 to maximize flight over open water.
• Make smooth power changes. Large, abrupt changes in power result in large, abrupt changes in sound level on the ground.
• The maximum number of aircraft in the FCLP flight pattern is five. This is so the FCLP pattern stays within the 5-mile radius of the class "Charlie" airspace, aircraft do not get extended creating additional noise impacts, and allowances may be made for non-FCLP aircraft to operate concurrently.

- Avoiding noise-sensitive and wilderness areas by flying at altitudes of no less than 3,000 feet AGL except when in compliance with an approved traffic or approach pattern, military training route, or within Special Use Airspace."

That is a lengthy quotation, but it is worthwhile to understand that there are written directives. Nonetheless, there have existed Growler and Prowler Pilots who adhere to all of those directives and a few that do not. This perception has existed for the entirety of my time spent on Whidbey Island during the past 14 years. And Whidbey is my only place of domicile. I reside on Whidbey year-round and am absent only for vacations or family visits. In other words, it is one thing to have directives and it is quite another to enforce those directives. I have no information regarding enforcement, but believe that in my14 years of living on Whidbey in the same home, and likely spending more time outdoors and in my backyard doing construction, maintenance and one heckuva lot of gardening than anyone I know, I have accumulated knowledge about pilot idiosyncrasys and predilections. For example what young man wouldn't like to fly like a wild man or test his or Growler limits? I acknowledge that there are not many occasions to do so because piloting even a Whidbey-based Growler is subject to the inherent directives involved in flying in closed loops in a safe and sane manner. However, there are gaps in the inherent controls on pilot behavior. For example, most of the pilots who exit from a closed loop pattern at OLFC and fly on a heading back toward Ault Field, attain a safe altitude before they cross the coast line of Penn Cove (when Runway 32 is used), and throttle back until well out over the waters of Penn Cove and only then execute a right turn over the water and proceed around Strawberry Point and onward somewhere eventually out of my sight, landing at Ault Field. Those nice guy pilots also fly a heading that represents a continuation of the center-line-extended of OLFC, until well out over the waters of Penn Cove. Then there are the other pilots. The ones who sometimes seem hell bent upon catching up with the aircraft ahead of him/her and first fly a heading 10-25 degrees to the right from the center line extended of OLFC, then execute first a sharp left turn to avoid a stand of tall Douglas Firs between Parker Road and the water line of Penn Cove, and then quickly execute another right turn sometimes flying with the wings on the Growler at a position that is perpendicular to the ground and at an increased ground speed well in excess of 250 knots and at an altitude that seems not to be more than 350 feet. That kind of flying was the subject of a conversation between (b) (6) and the duty Officer at OLFC several years ago when you could reach a person instead of a machine in regard to excessive noise involving excessive piloting. That Officer called back a day or two later and confirmed that he had figured out the culprit, because we had given him the precise time that the wings-perpendicular mode of flying occurred over our home located to the north by northwest of runway 14. He also said he had discussed the matter with that pilot and said that it would not happen again. It didn't, for a couple of months. Then, maybe a new crop of pilots showed up.

That type of flying also seems to be the subject of a manual devoted to the do's and don'ts of piloting contained in OPNAVINST 3710.7U. In regard to Flight-related disturbances, the Regulation at 5.5.1 reads:

"**Annoyance to Civilians and Endangering Private Property.** Flights of naval aircraft shall be conducted so that a minimum of annoyance is experienced by persons on the ground. [Ahem - please read that again] It is not enough for the pilot to be satisfied that no person is actually endangered. Definite and particular effort shall be taken to fly in such a manner that individuals do not believe they or their property are endangered (I guess that should be read as "reasonable" individuals?). The following specific restrictions apply in view of the particularly unfavorable effect of the fear, extreme annoyance, and damage that can be inflicted. . . ."

"**5.5.1.6 Flat Hatting** Flat hatting or any maneuvers conducted at low altitude and /or a high rate of speed for thrill purpose over land or water are prohibited. Any act conducted for thrill purpose are strictly prohibited."

I note that the term "Flat Hatting"has existed in the lexicon of Naval Aviation since at least the1944 Pilot's Manual. I doubt that it any longer means bopping a pedestrian's hat and crushing it "flat" in the context of Growlers, but I learned long ago to never say never.

The last occasion I witnessed (we were gone half of October 2016 and most of November) involving excesses of pilots occurred sometime in June or July, I believe. A pilot flying in no particular patterns, but making far more noise than ordinary or seemingly necessary, based upon my experience as a listener and watcher of Growler pilot behavior, flew around the vicinity of my home near OLFC for an untimed length of time, but likely about 45 minutes. A week or so, maybe 3 or 4 weeks, later, a local paper, or insert into the local paper, included an article about how a Commander at NAS Whidbey had recently retired, and on the day before his retirement had taken one final ride in a Growler. (b) and I connected the dots between the culprit we easily remembered and the day before the Commander's retirement. I do not know the Commander's name. He may have been a VAQ Squadron Commander or a Commander in a different position, or someone else, but I do know he seemed to enjoy fully his day of fun flying. i noticed too that he flow over OLFC and not so much around Ault Field. Maybe there were too many prying eyes around Ault Field, or maybe flying around OLFC was the condition of permission to waste some aviation jet fuel. I suppose I shouldn't complain, indeed, we did not formally or even informally complain, except to each other. But my question is this: Is it not easier to fly like a wildman over OLFC than at NAS Whidbey where there are more knowing eyes present at any given time? I strongly suspect that the correct answer is in the affirmative. That likely is one of the "gaps" in the Commander's, long-standing policy of noise abatement. That is, a Captain flying like a mad man likely isn't going to listen too much to a junior duty officer attempting to elicit cooperation, in flying closed loops. But that sort of flying is no fun for those of us working in the "solitude" of our gardens or other backyards below.

There is one thing regarding noise abatement and the Commander's policy that has bothered both (b) and I since the night of the scoping meeting conducted at the Coupeville High School in December 2016. She specifically asked the Commander about pilots guilty of "hot dogging" (her words). First, he replied that he would be shocked to learn that anyone under his command would be engaging in any "Top Gun" kind of piloting behavior. Further, he told us to go talk to CDR Chip Gaber or CDR Daniel Boyer. We did. After standing yet again in line. CDR Boyer respectfully informed us that supervision at the level of a Growler pilot was unnecessary or they wouldn't be pilots of Growlers. In other words, they would never fly like the Commander on the day before his retirement as indicated above. CDR Gaber basically said that pilots, during FCLP operations, sometimes will get out of the pattern, but when that is detected they are admonished to get back on track. That is perfectly understandable, but when a pilot exits a closed loop pattern, and departs for Ault Field (or the reverse), what controls are there regarding speed, altitude, and bearing, pending radio contact by the pilot with Whidbey Approach control? Isn't there a little time for faster, higher, off-course flying? Or buzzing my house thinking it belongs to my neighbor? Of course there is. Or, once a Growler goes airborne from NAS Whidbey for Oregon or Eastern Washington, isn't there a little time when a pilot has a bit more personal control regarding speed, climbing speed, and bearing? Of course. Do all Growler Pilots avail themselves of the opportunity? Fortunately, for the majority the answer likely is NO. But for some? I'm the one living below the shenanigans that happen too often.

All I am suggesting here is that some pilots fly like Officers and Gentlemen when over the civilian population that live near OLFC. And then, there are others. . . And they are the ones in need of supervision and monitoring beyond the present controls.

I also will go so far as to say that since Captain Geoffrey Moore became the Commander, NAS Whidbey, both(I agree that the episodes of noise from Growlers that are "over the line" have diminished. One of the possibilities may be that Commander Nortier no longer flies

over my house? Even if I am angry with the Navy, I still enjoy a bit of humor. Especially humor directed toward the former Commander. Before we even became aware that a new Commander had been installed at NAS Whidbey, we perceived a reduction in the frequency of over-the-line piloting, but acknowledge that deployments may well change the nature of the unnecessary noise scene. There likely will always be a few that seem to take delight in flying differently and generating more noise than the gentlemen. I even have a visual of Sen. John McCain, who we all know was, at a minimum, a very aggressive pilot, in addition to his being a National Hero and a Great American. Aggressive piloting likely was/is in his blood. And he always has been a Great American.

At the scoping meeting in Coupeville, we also specifically asked CDR Gaber why it was no longer possible to reach a live person when we had an issue we wished to discuss. I don't know when the new policy of only being able to reach a recording machine in lieu of a real person was implemented. His response was that we wouldn't believe some of the abuse and language employed by some people in making complaints or reporting particular incidents. Not being able to reach a real person lessens the likelihood that a real problem might be resolved with timely input from civilians, like us. He said the new policy was introduced to insulate the Navy's personnel who were monitoring live reporting. But if goes far beyond that. I agree that abuse likely is a huge issue coming from some folks who live near OLFC. Indeed, I invoked 5 full years of silence upon my next door neighbor in lieu of attempting to communicate with that neighbor. But I didn't cut off communicating with anyone else. I would support a three strikes of abuse (maybe two would be best) and you are thereafter barred kind of system, instead. The Navy could place a block on any calls from any telephone number they choose. In essence, I don't think eliminating the possibility of resolving some issues that may depend upon timely input is the best policy that could be employed. My personal experience is but one example. Finally, if you call the complaint line and leave a message, the return call may arrive when the complainer isn't available. That happened to (b) twice over time. Although (b) then returned the return call, but the person (Jennifer Meyer, was not available) never called back. We could do better, I think.

Complaints about excessive piloting behavior of Navy personnel, in my opinion, are worthy of listening to in a timely manner. The present level of the lack of an opportunity for timely communications would seem to me to be an undesirable thing to the Navy, especially when there is so much hostility on both sides of the noise issues arising from FCLP operations at OLFC. It would also reduce the likelihood that a "problem" pilot could be identified and issued stern warnings about "flat hatting."

SECTION 16.

THE NAVY, NEPA, AND PREDICTABLE FINDINGS OF "NO SIGNIFICANT IMPACT"

In performing research, preliminary to drafting these comments, I discovered dozens of instances in which the United States Navy has prepared and put into the "public domain "Draft Environmental Impact Statements" (hereafter DEIS) for various "projects" involving widely differing aspects of Naval duties and missions. Most involved new equipment or additional equipment assigned to various Navy bases.

I am dismayed by my inability to find a single instance in which the Navy, notwithstanding the advent of bigger, strong, faster, louder equipment, has ever reached a finding that its proposal for aircraft or equipment would have anything other than "No Significant Impact." My dismay may be misplaced by not looking long enough. Also, my dismay may best be directed toward the the entire EIS process, rather than the Navy in particular. To me, the EIS process invites investigation and perhaps a legislative revamping of the process required to adopt, implement, and deploy new equipment that affects or has the potential to affect civilians and military personnel regardless of where they reside. Why? First, in the context of a Navy DEIS, the Navy performs the task of coming up with "data" that often is created in a manner that understates or avoids analysis of the essential issues. The Navy has been accorded "great discretion" in selecting the metrics to be used in the DEIS. It is apparent that their metric selection skills leave much to be desired, if accurate and objective portrayals of "facts" are considered important. If not, then the current system is a facade and virtually worthless, in my opinion. After selecting the metrics and providing the data for analysis by experts hired by the Navy, the Navy makes a finding of "No Significant Impact," thereby avoiding the necessity to do any further environmental work.

Worse, in prior years, as in replacing the predecessor Prowler with the Growler, the Navy declared that the Growler is "quieter" than the Prowler (in many respects it is not). In prior years, the DNL numbers for the Prowler were at a lower level than in years earlier and no explanation is given. Since DNL's were based upon computer projections, using data provided by the Navy, it is disconcerting at best that the same software and same "experts" came up with new projections that assisted the Navy in making the argument that the Growler isn't bad, its quieter than the Prowler. Or, perhaps, the Navy unilaterally fed new "data" to the computer program. Now, in the current iteration of a DEIS, the Navy is attempting to increase the number of FCLP operations to be conducted at the combination of NAS Whidbey and OLFC from 20,800 operations per year to as many as 43,900 per year, and showing a transparent preference for the alternative and scenario that would increase the Growler operations per year at OLFC from 6,100 to 35,100. And it has greased the skids for a "No Significant Impact," as if that would be a fully objective conclusion. In fact, it clearly has nothing to do with objectivity. In my opinion, it is little more than merely a way around the obstacle that is NEPA and the EPA. It apparently even permits the vital

Tourist element of Coupeville's economy not even to be mentioned in the DEIS in the context of Coupeville's obvious economic reliance upon Tourism, notwithstanding that an increase in FCLP operations of anywhere close to 575 percent, as per Scenarios A, B, or C, of Alternative 1, 2, or 3, may well sound the death knell to Tourism anywhere within earshot of Coupeville.

Personally, I expected more integrity, forthrightness, and accountability from and within the Navy that is duty bound to protect both the United States of America and **all** of its citizens, including those who live in Coupeville or its Environs. It is tantamount to a Declaration of a War by Noise Terror upon the Civilians who live below the flight paths of the FCLP's performed at OLFC. It is a Declaration that the lives of people living below those flight paths don't matter. It is a Declaration that results from Navy logic that Trumpets The Mantra that the OLFC is the best landing field for these insane numbers of FCLP's. That is only because the Navy refuses, unreasonably, to consider any alternative FCLP sites.

The Navy and the United States Government own thousands of acres of land in the Pacific Northwest, indeed across the western portion of the United States. If the Navy was practicing dropping new versions of deep digging bombs or hypersonic missiles, would they say an area in which local governments have permitted civilian residential development to encroach close to the primary Navy base for testing new explosive devices is the best site to drop deadly new weaponry? I wonder. The obvious answer is that a new site should be secured for FCLP operations away from any population of civilians or military personnel. In the DEIS, the Navy only goes through the typical motions it has undertaken in countless other instances requiring the drafting of an EIS of considering the impacts upon people and the environment. It even hired outside contractors to conduct studies, using computer-generated data in lieu of real and actual and accurate data, to "prove" the absence of significant impact. The DEIS is a facade.

But the Navy does not ever say that there never will be people whose hearing will suffer, whose blood pressure won't reach dangerous levels, whose children will not suffer health-related impacts upon their education or learning abilities, whose fetuses will not suffer unknown disease or disability caused by extraordinary bursts of noise approaching or exceeding 125 decibels, that low-level sound waves generated by Growler engines won't have any impact on the fragile bluffs of Whidbey Island, or that existing home values will not continue to be adversely affected in the vicinity of OLFC. All of which actually may become reality in the lives of Civilians. Neither will the Navy aver or assert that there has never been an instance in which the Electronic Warfare equipment of EA-6B or EA-18G Prowlers or Growlers was used against civilians who reside on Whidbey Island below flight paths of those aircraft, including me (See Section 6. Electronic Warfare against Civilians?, My Comments)

In essence, the EIS involves a process that absolutely allows the Navy to pick the information it chooses to present, allows the Navy to judge which of the several alternatives, if any, should be selected, adopted, and implemented, and doesn't even

preclude the Navy from making its "findings" before the expiration of the period of time allotted for public comments, which don't even have to be read, especially by an independent panel, and allows the Navy to then announce its selection of whichever alternative it favors, and allows the Navy to determine whether there will be any significant impact. It is laughable, but extremely sad, to say that the process is designed to reach an objective decision, given the number of EIS's in the Navy history that "determined" the absence of any significant impact. It is also laughable that the DEIS in actually contains 10 different proposals, each a separate Alternative or Scenario and gives the pubic an opportunity for public comment; and provides for the OLFC area one copy for public use inside the Coupeville Library (after nearly one thousand residents showed up for the public scoping meeting in Coupeville in December 2016, in addition to several other copies placed in out of town communities, like Guemes, Orcas, and Lopez Island, and Sequim and on an on. The result is that your can read the DEIS online. It is very difficult to read it online and refer back to the Tables, Figures, and maps. It is two large volumes, over a dozen different sub-sections and appendices, and many more dozens of charts, figures, and tables, sometimes referred to but difficult to find quickly. I had no time to count, but I have read somewhere that it is something like 1500 pages. Thanks, United States Navy. I got the message.

The process is flawed terribly, as it is administered in a way unintended by Congress. Congress assumed that the dictates of fairness and even-handedness, indeed objectivity, would prevail, and that equal consideration would be given to Civilians impacted by Navy proposals. In my opinion that has not happened, and isn't even close to happening, with this flawed DEIS.

SECTION 17.

"ISSUES" OF NAVY LEADERSHIP AND ACCOUNTABILITY

The sheer number of scandals across the United States military services raises serious questions and issues about leadership and accountability in the various military service.

The current Navy-related scandals include the "Fat Leonard" bribery scandal that has resulted in the termination of the Navy careers of at least 3 Admirals and numerous other Officers. In 2016, an additional Admiral pleaded guilty to making a false statement to a federal investigator regarding the "Fat Leonard" bribery scandal. Two of the three Admirals first mentioned above were given letters of censure and were determined to have demonstrated poor judgment and a failure of leadership by engaging in unethical conduct., and the other was demoted.

A Marine Corp. General, in the context of the need for leadership and accountability has stated that "We will still need men and women in uniform to call things as they see them and tell their subordinates and their superiors alike what they need to hear, not what they want to hear.". . ."The time will come when you must stand alone in making a difficult, unpopular decision, or when you must challenge the opinion of superiors" . . ."[and] there will be moments when your entire career is at risk." Sprinting Through The Tape, Major General Thomas L. Wilkerson, U. S. Marine Corps (Ret.), Proceedings Magazine, July 2008, Vol. 134/7/1,265.

The difficulty of taking a strong stand when your career is at risk is generously presented by the court-martial case of one Lt. CDR. Sean Kearns. That case resulted from the death of a Petty Officer during small-boat operations on February 4, 2009, in the Gulf of Aden. An accident had occurred that involved 3 crew members in an inflatable boat that unfortunately flipped while being lowered into the sea. Lt. CDR. Kearns was the Executive Officer of the USS San Antonio at the time, and was charged with negligence for failing to properly train and supervise small-boat operations. Kearns chose to take his case to a court-martial in lieu of accepting a reprimand as had been given and accepted by the ship's captain. When asked why he refused administrative punishment, Kearns said: "Things needed to be made known. . . .Someone needed to stand up."

The two sides in the court-martial case took very different positions. The prosecution's position was that, regardless of circumstances, officers are responsible for the crew under their command. The defense argued that circumstances do matter and that, at some point, a Navy effort must extend beyond the confines of a single ship. The prosecution had not touched on the point that major material problems had plagued the USS San Antonio. Essentially, the ship had less than 100% of the resources necessary to accomplish its mission safely, but, nonetheless the Captain and Executive Officer were being held by the Navy to a standard that rendered irrelevant those limiting circumstances. Kearns was determined not to be responsible for the sailor's death.

Following that acquittal, Four-Star Admiral John C. Harvey penned a message declaring that, in the future, officers and executive officers need not fear becoming a scapegoat when things go awry, but neither can you claim that less-than-ideal circumstances will absolve you of responsibility. "The absolute responsibility that you have is the Navy's greatest strength because it gives you the ability to command. And with that responsibility comes the accountability that ensures command is worth something, and worthy of those we lead." (USNI Foundation, Leadership and Accountability, Nov. 2010).

How does this discussion have application to the DEIS for EA-18G Operations at NAS Whidbey and Whidbey OLF? The DEIS has an enormous amount of information that, if accepted or

approved, or both, will become tantamount to "facts" that likely will be looked at and essentially cited as factual by federal and other courts of law. In a letter, dated November 8, 2011, and written by the then Chief of Naval Operations, Admiral Jonathon W. Greenert stated that "Command is the foundation upon which our Navy rests." "Authority, responsibility, and accountability are three essential principles which are the heart and soul of Command," and that" you will be held accountable to the highest standards of personal and professional conduct." It is my position that information in the DEIS is sordidly lacking in integrity and accuracy, and that even as a draft, it is not worthy of being representative of a document ready to be submitted to the general public, specifically the people of Whidbey Island, because it is not consistent with the above-referenced principles of command responsibility. It is a one-sided Navy document in support of what the Navy wants to do at OLFC and Ault Field, in terms of FCLP's and little if any consideration is given to the requirements of NEPA and the Constitution of the United States (see Section 1, NEPA: The Federal National Environmental Policy Act of 1969 and the United States Navy, My Comments). Further, it is my opinion that the DEIS, in its entirety, should be withdrawn, thrown in the proverbial "can," and reorganized and rewritten. Simply stated, in my opinion, the DEIS is beneath the dignity and expected performance of people who have been given the honor of command within the United States Navy.

In this regard, consider the Navy "flavor" expressed in the DEIS, in the light of Commander Nortier's Declaration made under penalty of perjury and submitted in Case No. 2:13-cv-1232-TSV and filed May 29, 2015 in the United States District Court for the Western District of Washington at Seattle states as follows: "The population surrounding Ault Field is greater than that surrounding OLF Coupeville, which means noise impacts from aircraft operations at Ault Field impact a greater number of people than at Coupeville.2" [The "2" is a reference to a footnote]. Footnote 2, accompanying that quote is another quote which reads as follows: "2 Populations data shows that in 2010, Coupeville, Washington populations was 1,831 and Oak harbor Washington population was 22,075."

While I am not accusing Commander Nortier of perjury (he may not have written the document or even read it), in my opinion his declaration is at variance with the facts. First, the City of Oak Harbor is adjacent to Ault Field, but Coupeville is not adjacent to OLFC. Second, the contour lines for the "No Action Proposal" of the DEIS (meaning existing levels of flights) do not extend to include all of Oak Harbor, so it is misleading or deceptive to infer that all of the population of Oak Harbor is impacted by Ault Field flights. Indeed, runway 32 at Ault Field is seldom used and generally not used for FCLP's. That is the runway closest to the Oak Harbor nighborhoods having the highest levels of density. None of the 4 Ault Field runways entail flying directly over the most populated neighborhoods of Oak harbor. In contrast, the population surrounding OLFC includes more people than live within Coupeville city limits. While Coupeville is at least 3 miles from OLFC, there is, for example, the community of Admirals Cove, which is several more than 3 miles from Coupeville's City Limits and consists of over 400 homes and geographically is at the south end of runway 32 at OLFC, as well as hundreds of other homes that lie within even the 65dB contours drawn for OLFC. Admirals Drive and Byrd Drive, which is in Admiral's Cove, is the location of the POI near OLFC that has a DNL of 79 as projected in the DEIS near the end/beginning of runway 32. The POI having the highest DNL around Ault Field is for the POI of Sullivan Road. An online check of Sullivan Road reveals that there are 3 (three) registered voters who live on Sullivan Road (!!). Third, the FCLP flight tracks drawn for Ault field primarily utilize runways 07 and 25, and seldom use runway 14 of 32, which Captain Nortier could have said means that FCLPs seldom invade the city limits of Oak Harbor and thus, don't burden Oak Harbor residents to the same degree or extent as the people for example who live in Admirals Cove, because distance decreases dB levels. If you examine closely the topographical maps for the areas surrounding OLFC and Ault Field, you will see that the area directly below flight paths for OLFC are generally over more densely populated areas than is the case for the people living below flight paths at Ault Field.

Moreover, if you re-visit the topographical maps, there are few houses between the end of runway 25 and Dugualla Bay or between the coastline and runway 07 where I am able to detect zero homes. Contrasted with Admirals Cove or even my home on Kineth Point, there is a difference. Oh, also, my home is not within the City Limits of Coupeville. Neither is my neighborhood, the nrighborhoods around Race Lagoon, Harrington Lagoon, the neighborhoods near and Snakelum Point and Long Point, and on down Parker Road nearly a mile to a sign greeting us with "Coupeville City Limits."

My only point is that there is a lot of evidence that suggests that the DEIS is not an objective document. It is intended to support the Navy's conclusions, as made in the past, that OLFC, not Ault Field, is worthy of more intolerable, damaging Growler-induced noise. And the words, "the Navy cares" ring hollow and on deafening ears.

There are other areas concerning operations that cry out for attention by Navy leadership. In my 14 years of full-time residence on Whidbey Island, and spending literally thousands of hours in my rather large and very nice Garden, and being a person who is observant by nature, I have become knowledgeable of idiosyncrasies and techniques of Prowler and now Growler Pilots and Crews, performance variables between Pilots, and the evolution of the meaning of the phrase "we want to have a dialog" which I cynically believe is intended for someone other than citizens of Whidbey Island who live in the vicinity of OLFC.

Let me contrast two or more different kinds of techniques utilized by Growler Pilots over OLFC. Upon executing a takeoff after a touch, when on the way back to NAS Whidbey for more fuel or food or rest, most Pilots stay on a course that is the extension of a straight line from the touchdown point at OLFC that is clearly parallel to the straight line created by the runway. Those Pilots apply lots of throttle until a safe altitude is attained (which normally occurs about ¼ to ½ mile prior to reaching the water line of the east side of Penn Cove (facing Ault Field and Oak Harbor). Once a safe altitude is attained, those Pilots throttle back for a mile or so (seemingly to reduce noise below) and then, over the waters of Penn Cove, throttle up as they begin to turn in an easterly direction over the water and ultimately turn left over water toward Dugualla Bay or somewhere close to begin the approach to land at Ault Field. (b) and I call those Pilots the nice guys.

Other Pilots deviate considerably from the straight line mentioned above, shortly after take off after a touch, execute a right turn of about 10-25 degrees to the east of runway 14 and then execute a left turn and then another right turn before getting to the waters of Penn Cove. Sometimes, the last two turns allow them to fly like proverbial Bats out of Hell. One of the few complaints we have made in 14 years was about a pilot who made those three turns after take-off and flew directly overhead my home with both wings perpendicular to the ground, and of course, throttled back only after he was 2 or so miles out and over Penn Cove. We call those kinds of Pilots the Pilots who fly their planes as if it was the last opportunity for a joy ride. I get the fact that it must be an enormous thrill to fly an EA-18G right to the absolute maximum or a little beyond, but it should not be up to me to say so. On that particular occasion, we actually could reach a public affairs person and on that occasion (b) actually spoke to the a person who identified himself to (b) as "Officer Lopez." She didn't have to remember it, as she wrote it down and saved her notes. She had noted the precise time of that unnecessary maneuver and passed it along to Officer Lopez. He actually called back a day later and indicated that he had figured out from the logs whom was the culprit, and that it would never happen again. It didn't happen again soon, but it has happened on a number of other occasions. Perhaps, that could be explained by a change of Commanders or new crews arriving at NAS Whidbey. I have no clue. However, I have been around enough aircraft that I can tell excessive, unnecessarily aggressive, or nearly reckless piloting at low altitudes from normal piloting.

In our experience of watching and monitoring FCLP's for 14 years from our Garden which is on waterfront property on the East side of Penn Code, (b) (6) and I agree that most pilots fly basically the same track, but there are a few that do not. They prefer a longer track, or so it appears to us, to enable them to fly at a faster speed to seemingly make more noise than the others. Moreover, once the Pilots leave the confines of the OLFC closed loop flight paths and fly back to NAS Whidbey for fuel, food or rest, it is during the flights away from OLFC that some Pilots have fun flying Growlers in ways that seem not to be friendly to those of us who have no choice but to endure the "added" or "extra" noise, but rather oblivious people living below. That is a problem that, in our view, clearly demands attention and remedial action if not discipline. To us, it is unacceptable. It is our intention to begin keeping detailed information of Pilot activities when they occur, and to draw it to the attention of a Navy Commander, somewhere.

Another matter that, in our opinion is ripe for review and perhaps revision is as to flight tracks out of NAS Whidbey for EA-18G's that leave NAS Whidbey for other locations to undertake other, various forms of training and practice. It is a given that, if FCLP operations are undertaken at OLFC, some EA-18G's are going to come close by and make tremendous noise. It is less understandable why, when EA-18G's depart Ault Fieldfor a flight out of the area of NAS Whidbey, such as flying over to Boardman, they mostly are directed by Whidbey Approach to fly directly over OLFC and the same houses burdened by the FCLP operations. Why cannot those departure and arrival flight paths or flight tracks be redrawn to avoid flying over the same homes. For example, many of the flights take the aircraft over or near Dugualla Bay after departure from NAS Whidbey and so the question arises, at least in my mind, why cannot a vector be established keeping the aircraft over the Saratoga Passageway at least until they reach a point that would intersect the line currently used that directs the aircraft to fly over OLFC That difference is a difference of only 10-20 miles, but it would nearly silence one of the unnecessary sources of loud noise over the homes of people both to the north and to the south of OLFC. Isn't that a legitimate goal here? Can't we work to resolve some of the noise issues? How much measurable noise do these departure and arrival flight tracks generate, as for example, when they are ascending at full throttle or even with the assist of an after-burner?

I understand that flight tracks sometimes are negotiated between the Navy and the FAA, but we are not talking about major revisions. Just a little consideration for Civilians already burdened by FCLP noise, and favored by the Navy to have that FCLP noise increased by 575 percent.

Similarly, often the flight paths of planes descending on approach to NAS Whidbey take the planes directly overhead at altitudes of approximately 3-5,000 feet, and those too raise the question of why over the same houses already burdened with FCLP noise . I hope the Commander NAS Whidbey will undertake the task of reviewing and ultimately revising these flight patterns, consistent with an active, effective noise abatement program.

While I have not yet measured the noise generated (I promised myself to purchase a top-rated I-Phone application along with an omnidirectional microphone and tripod stand that will accurately measure decibel levels), by the flight patterns of EA-18Gs discussed in the previous two paragraphs, it is true that for some departures there are two, three or four EA-18G's grouped in a formation 30-45 seconds or so before arriving over my home. My estimation is that the noise event with three aircraft in a V-formation would approach100 dB, even at an altitude of 1,000 to 3,000 feet. In other words, it is noisy noisy and some of that noise could be eliminated, minimized, or otherwise dealt with, if there is the will to do so on the part of the Navy.

Another area in which the Navy has made an impact is in regard to the ability of Civilians to make timely input and engage in a dialog with those various Navy personnel. When (b) (6) and I

first arrived on Whidbey Island in 2002, we made no phone calls and sent no emails or letters of any kind. We had zero contact. There was noise, but it was not unbearable. When we first began to notice what we considered to be extraordinary differences in Piloting, we contacted the Navy, as indicated above in the discussion about Pilots that have excessive flying tendencies. (b) the diplomat, made our point, received assurances that the matter would be handled and we were thankful for the opportunity to assist in the resolution of a "growing" problem. Fast forward a few years to the present. We can still call the "hotline" or the "complaint" line, but are fully unable to talk to anything other than a machine. Usually, the machine doesn't call back. At the scoping meeting this was a matter brought to the attention of Captain Moore and a couple of the other Officers present and each was adamant in defense of the present system. So much for having a dialog. One Officer defended the current system on the basis that the person or persons who formerly answered the phone took horrible abuse with inexcusable language, and that those persons needed to be insulated from the abuse. So, if I understand this correctly, it is the position of Commander NAS Whidbey that all the citizens of Whidbey Island (probably most of whom live in the vicinity of the OLFC) are denied use of real-time "dialog" in order to insulate a person or two from taking phone calls and dealing directly with people who are abusive. Moreover, the "abuse" is not a one-sided argument. Consider "abuse" from the perspective of a person living beneath a Growler being flown by a Pilot who doesn't care, or with a crewmate who repeatedly destroys civilian electronic equipment (See Section 5, Electronic Warfare Against one Citizen?, My Comments).

Here are examples we encountered, using the present system. We found a quotation in the December 23 , 2013, edition of the Seattle Times that we wanted to use in the preparation of our comments regarding the DEIS. The article, however, is on the the Internet and there is no source information included. Because the quotation was of a Navy spokesperson, we contacted the Community Planning Liaison person at NAS Whidbey, Jennifer Meyer, by phone and actually talked to her. She replied by email, which reads: "This link will take you to the document. http://whidbeyeis.com/CurrentEISDocuments.aspx." That, sadly, is a direction to look at the Title Page of the entire DEIS pending before the public. Isn't that a 1,500 page document, or so it seems? In any event, the quotation could not be found in the document to which Mr. Meyer referred us to. Three days later, on December 16, (b) e called, talked to The Machine, and asked Ms. Meyer for a more exact reference, based on the suspicion that she must have located the source of the quotation (otherwise she would not have referred(to a 1,500 page document) but neglected to give us the exact location within the DEIS.

Following that, (b) went to talk about another matter with the very fine Island County Commissioner Helen Price-Johnson, who was out of her office at the time, but Kate nonetheless spoke with one Secretary in the CommissionerPrice-Johnson's office, who voluntarily undertook to contact Jennifer Meyer regarding the quotation in question. On December 19, a Monday,(received the following message from Ms. Meyer: "The following link will take you to the document. http://www.cnicnavy.mil/content/cnic/cnic_hq/regions/cnrnw/installations/nas_whidbey_island/om/environmental_support/_jcr_content/par1/pdfdownload_1/file.res/NAS%20Whidbey%20Island%20AICUZ.pdf. A little explication would have been appreciated. The way our legitimate inquiry was handled effectively sent us a message, whether intended or not: I don't want a dialog and do not bother me. At least, that new referral was to a shorter document. 190 pages.

A couple of hours latter, the Secretary to Commissioner Helen Price-Johnson also sent by email the identical link, but also specified which of the 190 pages in the AICUZ Study the quotation could be found, by saying : "Attached is a link to the 2005 AICUZ Study. The information you are requesting is in the tables on 3-4 to 3-7. Table 3-1 shows the historical flight operations and Table 3-3 next to the last line shows the 6,120 operations at OLF[C] that were projected. I used the Secretary's information and quickly found the information we had been seeking.

There is a lot of work to do. Or so it seems, to me.

Lastly, I will say that I have never met either Captain Moore or his predecessor, retired Captain Nortier. But before I even knew there had been a change of command, I mentioned to (b) that maybe there was a new Commander somewhere in the Navy heirarchy because the number of "gentlemanly" Growler pilots seemingly had increased and the other side had decreased. Obviously, I have no inside information, but the difference is appreciated. But the overall noise still remains bad.

SECTION 18.

THE NAVY'S DRAFT ENVIRONMENTAL IMPACT STATEMENT IS NOT AN OBJECTIVE DOCUMENT

As indicated in Section 1, Congress declared that "it is the continuing policy of the Federal Government . . . to use all practicable means and measures . . . in an manner calculated to created and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." NEPA further "declares that it is the continuing responsibility of the Federal Government [of which the Navy is a part], to improve and coordinate Federal plans . . . and programs to the end that the Nation may . . . assure for all Americans safe, healthful, productive and esthetically and culturally pleasing surroundings; attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences . . . and achieve a balance between populations and resource use which will permit high standards of living and a wide sharing of life's amenities. . . ." Finally, the Congress recognized and stated that "each person should enjoy a healthful environment and that each person [including military personnel] has a responsibility to contribute to the preservation and enhancement of the environment."

It is my strong belief that the Navy has disregarded these policy declarations of Congress and instead of acting consistent with the NEPA, unilaterally seeks to impose upon the Americans who live in Coupeville and its Environs, a real-life environment that includes terror-by-noise generated by EA-18G Growlers, and for the future proposes to increase the duration of those noise levels, as reflected in the number of proposed FCLP operations, by as much as 575 percent to levels devoid of conscience or concern. There is virtually no acknowledgement in the analyses in the DEIS of either the mandates or the policies of NEPA or any expressed concern for the civilians burdened beyond belief by what, in my opinion, amounts to a unilateral abuse of power by the Navy. Instead, the DEIS would make it possible for the Navy to defy reality and reach a false and untrue conclusion that even by increasing present noise-terror by 575 percent would entail "No Significant Impact" upon fetuses, babies, children, pregnant mothers, elderly people, indeed any human. How, you might ask? Because the Navy has "managed" and directed the data that is included in the DEIS, and the Navy will be the prosecutor, judge and jury in reaching a decision of "No Significant Impact" so that the Navy can then do what it wishes to do, accompanied by an apparent civilians-be-damned attitude, as to the Town of Coupeville and its Environs.

Those are strong words, but in essence there is a similar record reflected by Navy leadership in reaching conclusions and decisions of "No Significant Impact" in countless other episodes.

This has nothing to do with the highly professional and effective manner in which the Navy has performed the Navy's mission, sometimes in exceedingly difficult circumstances. But it does seem to be a feature in several scandals involving Navy personnel over the years, although I have no need to discuss those, other than to wonder whether Navy culture is what it should be, and I have no way to assess that.

A relatively painstaking review of some of the Navy's use of statistical information hopefully, for the reader of this Section of My Comments, will shed the light of day upon some of the data used by the Navy to facilitate a "No Significant Impact" conclusion which is the ultimate Navy

goal. Why without question? Because the Navy chose to use a computer-generated modeling program instead of obtaining actual data as the metric by which to gage Growler noise, or to otherwise verify the data used, or by failing to provide documentation that indeed there exist health issues in their proposals.

The metric, known as a modeling metric, the DNL, which includes the quiet time in a typical 24-hour period of time in a 365-day year in calculating the level of noise resulting from Growler light operations is what is used, but unverified. It does not provide a real-life level of noise exposure. That same computer-generated modeling program could be "set" so that it is limited to flying days and further limited to flying hours in a flying day to better gage the intensity during a flying day of Growler noise as well as the duration of that noise. That could be accomplished in addition to using the present method for some legitimate purposes. Typically, the DNL system is widely utilized and accepted to predict public annoyance with noise environments, and in assessing land developments plans for communities, but not for understanding a narrative about health issues caused by high levels of noise.

The DEIS contains a "No Action Alternative" that would continue the practice of flying 6,100 FLCP operations per year at OLFC and 14,700 at Ault Field, for a total of 20,800 per year. In essence, if selected, the "No Action Alternative" would constitute a continuation of the status quo. It should be noted the the current flight level at 6,100 at OLFC was never a proposal that received full vetting under NEPA or that was the focus of a DEIS.

In documents obtained pursuant to the federal Freedom of Information Act, the Navy has determined that at OLFC there are typically 40-50 flying days per year during which FCLP operations are performed. Assuming that there actually are 45, that would translate into an per-flying day average of 1/45th of the 6,100 FCLP operations performed at OLFC per year. That yields a per-day number of 135 (6100 FCLP's divided by 45 flying days). If the number of flying days per year is 40, the FCLP average per day would be 152½. Most POI's used by the computer modeling program would receive less than that amount. The reason is that at OLFC there is but one landing strip, but there are two runways that are used, primarily dependent upon wind direction as well as the length and width of FCLP Flight Tracks. Normally, landings are executed into a headwind, if available, and take-offs seldom are executed with a tail wind if reasonably avoidable, for safety reasons. Admirals Drive, for example, receives most noise when Runway 32 is used for landings, up to 70 % of all FCLP operations, because of safety issues with Runway 14 relating to the Growler flight capabilities and because of prevailing wind patterns.

Each FCLP operation counts as two flights (one for a landing approach leading to a "Touch" and one for the "Go" which is an accelerated, powered take-off in lieu of a full stop. The Touch is noisy because of a powered landing approach leading to a "Touch" and the "Take-Off is noisy because the aircraft must employ tremendous thrust to obtain appropriate velocity to propel the aircraft to a safe altitude and on to another FCLP with no stop between FCLPs during a "session" that may include as many as five Growlers flying the same flight track during a session. Lots of noise that the DEIS characterizes as "intermittent." While the term "intermittent" makes sense in the context of flying days in a month or year, it makes no sense in the context of Growler noise analysis during a Session of multiple Growlers, but rather is misleading and deceptive, and gives a false impression that belies the reality that there is substantial noise preceding, for example, the arrival of a Growler directly overhead and for a period of time thereafter as the Growler flies on toward another sometimes seemingly unending

parade of Growlers flying FCLP loops or tracks that on paper look every bit like a racetrack for horses or cars. When multiple Growlers are flying the same loop (the Navy says no more than five should fly the same loop in a session), it is more accurate and precise to use the term "intermittent" to describe the presence of "silence" (my term) during a session. Human recovery from living below FCLP flight paths normally could be expected to require a longer "intermission" than what normally is available when FCLP's are flown by four or five Growlers in four continuous sessions, interrupted only by the need for more aviation fuel and food, or rest for any particular pilot.

Further, a POI at the end of a Runway (32 for example) would receive noise from a "Touch" because of the associated powered landing approach, but not as much noise from a "Go" which could be expected to generate noise at the other end of the landing strip (Runway 14), and the noise would vary depending upon the flight track undertaken. The longer the flight track, the more homes there are that would impacted by noise at OLFC. That noise does not enter into the data utilized by the Navy in the preparation of the DEIS. However, in calculating the very biased DNL calculations, the "relative quiet" of night time is included in their calculations. Yes, DNL calculations, based upon decibel levels includes projected nighttime noise levels (i.e. noise while sleeping) in making those 24-hour averages. In analyzing noise, where the DEIS proposes increasing FCLP operations by up to 575 percent over civilian-only neighborhoods). Thus, for the Admirals Drive POI, the humans living nearby are currently subjected to Growler noise 70% of Touches (70% 0f 3,050 Touches which would be 2135). If that number of "touches" is divided by an average of 45 flying days per year the Admirals Drive POI would get "touches" at the rate 47.4 per flying day). It also would get noise from take-offs but to a lesser extent because of the attenuation factor of distance from the noise source. Actual measurements could and should be used to determine precisely the amount in both cases. What is important to citizens who live at Admirals Drive is the total dose of noise per FCLP in oder to determine whether the total exposure during a single FCLP, or the combined total for all of the FCLPs in each session for each Flying Day exceeds the noise exposure limits set by OSHA and NIOSH (see Section 8., DNL, NIOSH & OSHA, My Comments).

Further, most anyone who lives in the vicinity of the OLFC and who possesses an elementary understanding of which flights involve FCLP's and which reflect overflights involving Growlers taking off or landing relative to training or other business conducted other than for FCLP operations at OLFC, or for arrival or departure from OLFC, and in instances in which 4 Growler aircraft in in FLCP flight tracks and where there are, say, 4 FCLP sessions in one flying day, the number of noise episodes likely will exceed 47 per day. The only sure way to measure noise at any POI from all FCLPs, from FCLP associated flights to and from Ault Field, from Growler flights from and to Ault Field involving an overflight of the area around OLFC, and from other aircraft such as helicopters and occasional use of OLFC by other Navy aircraft such as F-18E/F's or other Navy aircraft is to use actual equipment to measure such noise. Not a modeling program written for a computer-generated program that is limited by the particular parameters concocted for a DEIS, and designed to facilitate and support a finding and decision of "No Significant impact". The DEIS makes no noise projections regarding any flights emitting noise at the communities surrounding OLFC other than FCLP's although there are a huge number of thosel, and apparently more are coming from at least three dozen additional Growlers due to be assigned to NAS Whidbey. Aside from FCLP's none of that noise is calculated for a noise exposure to OLFC communities, but seem to be factored into calculations for Ault Field because they are referred to in DEIS in the context of Ault Field.

In contrast to Admirals Drive, the POI of Race Lagoon, which is situated to the east of the center point between Runway 14 and 32 of the landing strip at OLFC and which, therefore, receives noise from both powered landing "Touches" and full-powered take-off "Go's", and thus would be subjected to noise from all 6,100 FCLP operations per year, which would amount to about 1/45th of 6,100 FCLP operations to arrive at a per flying day number of Growler-flight noise of 135 or 136. I believe the modeling data does not attribute noise to any POI greater than 50%, because it assumes a split of 50/50 for each of Runway 14 and of 32, and not a full 100% for any POI that receives noise from both, like Race Lagoon.

In addition, if actual monitoring equipment had been used, and the data had been recorded, that record would reveal that, for many locations, including my residence at the North end of Runway 14, at a waterfront location on the south side of Penn Cove, even when Runway 32 is used for the "Go" portion of a FCLP, high levels of noise over my home is generated by a Growler while it is executing a relatively tight left turn to the west (sometimes directly overhead, as when a pilot wanders away from a patterned and prescribed track) in preparation for executing another FCLP utilizing Runway 32 and the accompanying flight loop, and is very similar to the intensity and duration of noise generated over my home when a Growler is on approach to a powered landing "Touch" when Runway 14 is being utilized. A separate Table is in the DEIS for each of Scenarios A, B, and C for each of Alternatives 1, 2, and 3 and for the "no Action Alternative."

To accentuate the decidedly wrong assessment for a comparison between the respective Admirals Drive and Race Lagoon POI's, Table 4.2.11 says that for Admirals Drive there will be a maximum sound exposure level of 118 and a level of 114 for Race Lagoon, and those numbers are projected by the modeling program to increase (without explanation) to 121 and 115, for those two POI's. Then, to prove my point, the "number of Annual Events" during which the maximum is projected to be a fact of life for Admirals Drive is 267, and for Race Lagoon is 55, if the "No Action Alternative is selected (See Table 4.2-3). Horrifically, if Alternative 1, Scenario A is selected, the numbers increase bigly for Admirals Drive to 2,650 and to 515 for Race Lagoon. Those numbers are not explained and seem to defy gravity in favor of numbers floating somewhere in the clouds. It is but one of hundreds of examples where simplicity for the sake of ease of understanding has suffered in favor of confounding, under-stated, and unexplained pages and tables that comprise the DEIS. For my purposes it is an example of why the DEIS is unreliable and, in my opinion, designed to facilitate a finding of "No Significant Impact" for whichever of the 10 proposals the Navy wishes to impose upon the civilian communities that surround OLFC.

Civilians living near OLFC will be subjected to record or near record levels of noise, in excess of the federal noise limits established by NIOSH and by OSHA dose limits, considering all of the FCLP operations during which each of those POI's, and other non-projected locations, will be subjected to dangerous levels of noise. For Admirals Drive, under Alternative 2, Scenario A, (for example) that number likely would be 70% of all FCLP's anticipated by Alternative 2 which would be 70% of the "Touch" portion of 33,600 FCLP's, which is 70 percent of half of the total number of FCLPs, which is 11760; and for Race Lagoon it could well be 100% of all 33,600 FCLP operations. For Race Lagoon, the number per flying day of Growler noise during FCLPs would be 1/45th (assuming FCLPs are performed 45 flying days per year) of 33,600 = 672 per day, which is ridiculous. To reduce that number to the current level of overflights per day would require the number of flying days per year to be increased significantly to accommodate the number of FCLP operations projected.

I point out that Table 4.2-3 "posts" the number of FCLP's under each of the 4 Alternatives of No Action, Alternative 1A, B, and C. The Alternative and Scenario having the greatest impact on OLFC is Alternative 1, Scenario A. For Race Lagoon, the projected number of times in the year in which the maximum noise would occur is 515, and for Admirals Drive, it is 2,650. What accounts for this difference is unexplained. Even at the POI of Snee-Oosh-Point Which is not even on Whidbey Island but rather is on Fidalgo Island, the number is 1,033. Race Lagoon is on the Flight Tracks for both OLFC Runway 14 and Runway 32 (opposite ends of the same landing strip at OLFC). Snee-Oosh-Point is not on any runway for either OLFC or Ault Field, so obviously something other than FCLP's are being calculated. Even when FCLP's are performed at Ault Field, the number for Snee-Oosh-Point is less than 1,033 (918). Seems to defy reality. Those numbers, as explained in the narrative preceding Table 4.2-3 is to show "the number of events that would produce the **maximum**" noise exposure expressed in SEL L-max decibels, on a per-day average for the entire year. The maximum exposure level for Admirals Drive, according to that narrative, is "an average of approximately seven times per day. That calculation is made by dividing 2,650 by the number of days in a year (265). 2,650 divided by 365 = 7.26. Race Lagoon it would be 515 divided by 365 = 1.41. For Snee-Oosh-Point, it would be 1,033 divided by 365 = 2.83. Consider this, for a moment. When FCLP's are performed at OLFC, a place on Fidalgo Island gets more noise. Hard to believe, but take a look at Table 4.2-3.

Including this category of numbers in the DEIS may have a reasonable use, but a consideration of the average amount of noise exposure to civilians living below OLFC-based FCLP's, for purposes of determining the extent to which the Navy is proposing to subject Civilians who live in Coupeville and its Environs, is not one of them. Why? Because under Alternative 1, Scenario A, the DEIS is proposing that 35,100 FCLPs will be flown at OLFC. While Table 4.2-3 tells us how many times the Navy's projections of noise will be at the maximum of 114 L-max Decibels, it only tells us about 2,650 of the FCLP's. It tells us nothing about the other humongous number of FCLP's. That number, if Admirals Drive gets 50% of the FCLP's, would be 35,100 divided by 2 = 17,550 FCLP's (calculation for number of "touches"). 17,550 less 2,650 = 14,900 that may be at a decibel level of 117.4, or 117, or 116 decibels, or whatever. None of them would be stealthy and silent. All 14,900 have to included in calculating the total exposure for Civilians who live at the Admirals Drive and Byrd Drive POI. The same thing, basically for Race Lagoon, except they would get a longer does of noise, perhaps than Admirals Drive because it is close to the side of the landing strip rather than at an end of the landing strip at OLFC.

Two other tables that are insightful, at least in the context of the lack of objectivity in the DEIS, is Table 4-7 andTable 4-8. Those tables purport to indicate the for each of the POI's the average indoor nightly awakening by Growler noise and the average daily indoor daytime per hour speech interference from Growler noise, measured in terms of the "Average Year Baseline" scenario. Let's compare the numbers for Ault Field and OLFC by looking at the most susceptible in each category. At first glance, the reader is inclined to compare Sullivan Road (near Ault Field) with Admirals Drive (near OLFC), and say "Wow, Sullivan Road really has it bad. Remember also that proximity to the noise source is a factor when determining the intensity of noise. Presently, for the Sullivan Road POI and for the Admirals Drive POI, the respective DNL's are claimed by the Navy to be 90 and 79 based on the Navy's computer projections (see Table 5-5). The maximum Sound Exposure Level for those two respective POI's are 121 and 118 (see, for example, Table 4.2-11). The DEIS also claims that 3 decibels

are hardly perceptible. In other documents, like NIOSH documents, 3 dB represents a doubling of noise, measured by decibels. The difference in DNL's maybe be explainable in terms of total traffic, but not all aircraft traffic is counted for any POI near OLFC, while it is counted or considered or factored into the DNL computer projections. In any event, Table 4-7 shows that, for example, the Annual Average Nightly Probability of Awakening if you live on Sullivan Road is 68%. If you average "up" that would mean **100% of the three registered voters who live on Sullivan Road** would be awakened nightly (see Voter Records, Sullivan Road, Oak Harbor, WA). Given that the Civilians who live near Admirals Drive and Byrd Drive (the full address of the POI at OLFC) is in an community with more than 400 homes, and is directly below low-level landing approaches at OLFC when Runway 14 is used, and has a peak Maximum Sound Level of of 118 under the current level of flights at OLFC), **it is difficult to have confidence in the Navy's claim that only 13% of those residents would be awakened nightly**. Similarly, under Table 4-8, the Annual Average Daily Indoor Daytime events per hour in which there will be **Indoor Speech Interference for Sullivan Road is claimed to be 10 and for Admirals Drive it is one. These numbers are astonishing when you consider that Growler Noise, for example, drowns out the audio on movies, or football or basketball games every single time a Growler flys by while entering or exiting a FCLP, while departing Ault Field or arriving at Ault Field and while flying directly over OLFC, as well as for each FCLP operation involving, for Admirals Drive at least half of 6,100 or half of 35,100 FCLPs projected to be flown at OLFC by Alternative 1, Scenario A.**

These numbers, as indicated above are "astonishing" because they are flatly and fully unbelievable. Further, as I indicated elsewhere in My Comments, the selection of POI locations are not identical in terms of selection criteria. My best guess is that the Navy played a role in the selection, on the basis that they "feed" the data to Wyle Laboratories.

The point I am making is that the data in the DEIS is both unreliable, incomplete, and biased. Further, usually in the highly technical world, it is ordinary to include nearly unending detail regarding data and details. For example, you can find online at least two instances in which the United States Air Force utilized a software program called NoiseCheck to check the accuracy of projections made by NoiseMap. The NoiseCheck data is included with the report indicating where the NoiseMap data was in conflict with the NoiseCheck data.

The NoiseCheck report found deviations and the report in that regard contained pages of data so that others could check the work and calculations. In the context of the preparation of the DEIS under consideration with reference to Growlers at Whidbey in the here and now, we have very little evidence regarding the data fed for NoiseMap purposes by the Navy to Wyle Laboratories. Or how many times did the Navy change the data provided to Wyle Laboratories, or was it ever changed by Wyle Laboratories. But it is disconcerting that some numbers relative to comparative noise made by Prowlers and Growlers is different in this DEIS now than before. Prowlers somehow became noisier and Growlers became somewhat quieter in some categories of comparison. No explanation is given, which doesn't assist in building confidence.

I now turn to facts derived from the Internet, including the Navy's owns websites. I was literally stunned and shocked to learn that the Veterans' Administration has expended the enormous sum of **$6,048,000,000 for Disability Benefits paid for hearing loss as the Primary Disability** between 1968 and 2006. Moreover, Navy's graph is a strong visual depiction showing the exponential rate of increase in disability payments for hearing loss between 2000 and 2006 (See Chart attached to this Section, provided by the Naval Safety Center,

NAVSAFECEN). Keeping in mind that 2006 was an entire decade in the past, it is reasonable to conclude that the exponential rate of increase continued to even more mind-boggling numbers that presently are unreported and unknown to the general public. I also point out that the headline to the chart provided by the Navy is **"STEPS MUST BE TAKEN TO REVERSE THE TREND".** Putting those numbers into context, there apparently are only about 107,000 sailors living and working aboard U. S. Navy ships, but noise is a fact of everyday life in the Navy, even for Navy personnel assigned to shore duty at NAS Whidbey. The final point is to state the obvious, that a Civilian who lives in the vicinity of OLFC and is subjected to the noise levels imposed by low-level Growler flights engaged in FCLP operations as well as overflights over OLFC of Growlers, does not have the same recourse of seeking disability payments for Growler noise, in the event of hearing loss, as either military personnel or civilian personnel employed at NAS Whidbey. We are on our own. That is why it is impossible for me to understand why the Navy stubbornly adheres to the ways of the past, in using a modeling computer forecast to understate the noise problem for the apparent sake of reaching the "easy" decision of "No Significant Impact." It is foreseeable that lawsuits for hearing loss, as well as other physical and mental consequences (perhaps similar to those consequences the formed the basis of lawsuits in Japan resulting in many millions of dollars in damages awarded to the plaintiffs) will be laid at the feet of Navy leadership in the not too distant future. I, along with many of the Navy Veterans who receive disability benefits for hearing loss, am living proof that it doesn't take 40 years, as claimed repeatedly in the DEIS, at present levels of exposure (as said to be the case by the Navy in the DEIS). I have only been exposed to Prowler and Growler noise for 13 years and my hearing has suffered quite a bit. I'm guessing somewhere between 30 - 40 %. Just ask (b) (6) What? While I might have sought protection earlier, was it ok for me to rely upon the Navy's claim that it was safe to be outside in my garden everyday and not worry about hearing loss?

Even if "Noise Terror" is not a fundamental purpose in planning, purchasing, and utilizing increasingly louder and more dangerous aircraft, there is that aspect of Growler-generated noise. That is to say, if "Terror" is a purpose and function of Growler-generated noise, the people who are subjected to that noise terror the most are the Americans who live in the vicinity of a landing strip such as OLFC, or NAS Whidbey, or any other NAS where FCLP's are performed for EA-18G's and F-18E/F's. The number of flights over enemy territory anywhere in the world today, or anywhere since EA-18G's became operational, does not mathematically compare to the number of flights over the homes of people who live where FCLPs are performed and executed, as in the case of OLFC.

Isn't it time for the Navy to admit that it cannot even stop Growler pilots and crews from choosing to live, for example, in Anacortes, Washington, which is not even in the same county as NAS Whidbey or OLFC, as a means to escape FCLP noise. Indeed, of the Six Navy representatives in attendance at the Coupeville scoping meeting in December 2016 regarding the DEIS this question was posed to all but the Base Commander : "Do you live near OLFC or on NAS Whidbey." The answer was a resounding "No" from each person. One person was from Virginia, and indicated a preference to having a 1½ hour long commute in each direction to live away from FCLP noise. The reasons may be varied, but it isn't a stretch of credulity to declare that living near a place like OLFC would be absolutely intolerable for most families of military personnel. The reasons why so many people chose to live near OLFC relate more to a failing of both the Navy and local government officials to apprise people of the full extent and intensity of noise levels inherent upon living close to OLFC. That is to say, the "warnings" and disclosures provided were not adequate, accurate, or clear. In any situation, it is apparent that

the Navy, the county government and the real estate brokers/agents all had a hand in diluting the disclosures made to Civilians who bought homes near OLFC in the last 15 years. In the OLFC vicinity, it is accurate to say that if there had been a conspiracy between the Navy, Local Governments, and the Real Estate Brokers and Agents who were involved with selling lots and homes near OLFC in one capacity or more, the design of the warnings and disclosures provided at the time I purchased my lot in 2001 would have been a very good model or technique for understating and providing misinformation to delude and fool people into buying property in that vicinity. I believe the courts would look carefully before "sticking-it-to" the Civilians adversely damaged and impacted by that scenario. The relative equities are clear and apparent. Further, there is another full-fledged choice - that of the Navy finding a new OLF that will not threaten the health, physical and mental, as well as relative wealth of Civilians. If the Navy would do that, or be required to do that, the issue would be resolved. **A new NAS is unnecessary. A new OLF is essential.**

A 2009 document prepared by the Naval Research Advisory Committee and obtained from a Naval online source (www.NRAC.Nsvy.Mil/docs/2009_Executive_Summary.pdf) addresses the Navy's dramatic degree of inaction on jet engine noise problems, and states as follows: "An overarching finding of this study is the paucity of engineering quality data. Standardized engine noise data to compare the engine noise among different aircraft or among various engines do not exist, and the available data do not correlate Sailor or Marine hearing loss with their respective noise exposure environments. Also standards to not exist for acquiring engine noise data for tactical aircraft. . . Approximately 28% of the VA hearing loss claims are for the Department of the Navy, but data does not exist on the environment that caused the hearing loss. . . ."

"Although the noise levels of commercial jet airliners have been decreasing, the noise levels of tactical jet aircraft have not. In all likelihood, tactical jet noise levels have increased as the velocity and airflow from these engines have increased to produce added thrust. . . . The Navy has not routinely measured aircraft noise and does not maintain a data base of the noise levels of its aircraft. There has never been a requirement for a maximum noise level in military aircraft, and today the Department of Defense does not have adequate understanding of supersonic jet engine noise to establish a realistic maximum noise requirement." [Solutions to noise problems] "will require finding ways to limit the exposure of . . . personnel to areas of high noise. It will require the development of better procedures to monitor the noise exposure and hearing loss of personnel. It will require further development of noise abatement procedures to minimize the noise footprint around Naval . . .Air Stations. And finally, it will require more research into the physiological effects of the full spectrum of noise - including low frequency pressure levels."

It is a fact that while one Growler costs in the vicinity of 85-100 million dollars, the Navy between 2003 and 2009, over a 7-year period, spent only $15 million dollars on noise reduction investments even in the face of an exponentially increasing amount expended on noise-related military disability benefits. Moreover, it is a fact that current Navy planning is to replace the EA-18G, which is built on the F-18E/F frame, with an iteration of the F-35, which has louder noise parameters than the EA-18G.

Further, even the NRAC, as well as the International Medical Community (including the medical community in the United States, has expressed alarming concerns about the adverse impact of low frequency sound pressures on hearing and internal organs, the sustained exposure of noise of all kinds upon learning and cognition, and situational awareness involving sound. The

International Journal of Occupational Medicine and Environmental Health (2005; 18(2): 185-198) stated a simple but alarming warning as a conclusion to its study of whether exposure to low frequency noise, as emitted for example by the Growler, can influence mental performance as follows: These findings suggest that LFN [Low Frequency Noise] at moderate levels might adversely affect visual functions, concentration, continuous and selective attentions, especially in the high-sensitive to LFN subjects." It is unacceptable that the biases in the DEIS suggest strongly that the Navy seems content to sweep hearing and health issues under the proverbial rug instead of addressing the issues of continuing to use OLFC as if it was situated on a desolate island far from any human, child, or other living thing. We all deserve better.

A lengthy search of data in the DEIS does not reveal any analysis of the impact upon the civilians who live in the vicinity of OLFC of levels of noise for that many FCLP's, or the economic impact that will put at risk the economy and lifestyle of Coupeville, which was intact since about 1881.

I cannot point to any consideration in the DEIS other than the Navy's wholehearted support to itself and its positions, by taking a singular tack. There is no objective consideration, mandated by Federal Law that is NEPA, to provide balanced, objective analysis of both the Navy position and the clear position of Coupeville, its Environs, and the legitimate concerns of Civilians who live below the noise terror of the Growlers. The absolute silence with which the Navy blithely ignores the possibility of a better situation than they presently have at OLFC, including a permanent end to the bad feelings that exist on both sides of this Navy-created mess, is not silence but a loud Growler-like roar that the Navy will not even attempt to remove itself from the noise mess it has created by continuing to use a temporary landing strip and pretend it is something more akin to LAX. I understand the Navy's position and believe it is nothing more than an extraordinarily selfish act preferred, regardless of the impact upon the economy of Coupeville, or upon the home values, health, and ability to live an enjoyable life without Growler noise terror (See Section 3, Coupeville & Environs: A Quality of Life at Risk of Devastation by the United States Navy; and Section 4, DEIS Economic Benefits to Coupeville & Environs Means Negative Impact Burdens, My Comments). Not even once in 14 years have I seen a Navy vehicle in my neighborhood during the times FCLP operations are performed or at any other time for any purpose, much less to monitor FCLP's from the eyes of a person who lives near OLFC).

Sometimes, I get the feeling that in writing DEIS' the Navy instead of following the mandates of NEPA instead engages in Information Warfare and Deception. And in my opinion they are pretty good at it. Maybe it is time to revisit NEPA and the Navy's apparent vision and unchecked performance.

4.4.3 *Residential Nighttime Sleep Disturbance*

Table 4-7 lists the probabilities of indoor awakening (PA) for applicable POI for average daily nighttime (10 p.m. to 7 a.m.) events. Under the Average Year Baseline scenario, the PA would average 15% and 9% across the listed POI for windows open and closed, respectively. POI R01 and R02 would have between 36% and 68% PA, depending whether windows are open or closed.

Under the High Tempo Year Baseline scenario (Appendix G), the above-cited statistics would not change the overall average PA relative to the Average Year Baseline, except the range of PA for POI R01 and R02, i.e., between 38% and 70% PA, depending whether windows are open or closed.

Table 4-7. Average Indoor Nightly Probability of Awakening at Applicable POI for the Average Year Baseline Scenario

Point of Interest				Annual Average Nightly (2200-0700) Probability of Awakening (%) [1]	
Type	ID	Description	Related Field	Windows Open	Windows Closed
Residential [2]	R01	Sullivan Rd	Ault	68%	52%
	R02	Saiai St. and N. Northgate Dr	Ault	50%	36%
	R03	Central Whidbey	Ault	21%	10%
	R04	Pull and Be Damned Point	Ault	24%	11%
	R05	Snee-Oosh Point	Ault	19%	6%
	R06	Admirals Dr and Byrd Dr	OLF	13%	8%
	R07	Race Lagoon	OLF	6%	3%
	R08	Pratts Bluff	OLF	5%	3%
	R09	Cox Rd and Island Ridge Way	OLF	4%	3%
	R10	Skyline	Ault	7%	2%
	R11	Sequim	Ault	0%	0%
	R12	Port Angeles	Ault	0%	0%
School (near residential)	S01	Oak Harbor High School	Ault	28%	15%
	S02	Crescent Harbor Elementary School	Ault	26%	16%
	S03	Coupeville Elementary School	OLF	7%	4%
	S04	Anacortes High School	Ault	2%	1%
	S05	Lopez Island School	Ault	0%	0%
	S06	Friday Harbor Elementary School	Ault	0%	0%
	S07	Sir James Douglas Elementary School	Ault	0%	0%

(1) assumes 15 dB and 25 dB of Noise Level Reductions for windows open and closed, respectively.
(2) R01 and R06 include interior SELs greater than 100 dB with windows open

4.4.4 Residential Daytime Indoor Speech Interference

Table 4-8 presents the average daily indoor daytime (7:00 a.m. to 10:00 p.m.) events per hour for the applicable POI that would experience indoor maximum sound levels of at least 50 dB with windows closed and open, for the Average Year Baseline scenario. Events per hour would be less than 1 at 9 of the 19 POI and would range between 1 and 10 for the remaining POI, regardless of the window state.

For the High Tempo Year Baseline scenario (Appendix G), the above-cited statistics would not change relative to the Average Year Baseline, except that POI R10 would have 1 event per hour with windows open.

Table 4-8. Indoor Speech Interference for the Average Year Baseline Scenario

Point of Interest				Annual Average Daily Indoor Daytime (0700-2200) Events per Hour [1]	
Type	ID	Description	Related Field	Windows Open	Windows Closed
Residential	R01	Sullivan Rd	Ault	10	10
	R02	Salal St. and N. Northgate Dr	Ault	8	7
	R03	Central Whidbey	Ault	2	-
	R04	Pull and Be Damned Point	Ault	4	2
	R05	Snee-Oosh Point	Ault	1	-
	R06	Admirals Dr and Byrd Dr	OLF	1	1
	R07	Race Lagoon	OLF	-	-
	R08	Pratts Bluff	OLF	-	-
	R09	Cox Rd and Island Ridge Way	OLF	1	-
	R10	Skyline	Ault	-	-
	R11	Sequim	Ault	-	-
	R12	Port Angeles	Ault	-	-
School (Near Residential)	S01	Oak Harbor High School	Ault	5	1
	S02	Crescent Harbor Elementary School	Ault	4	1
	S03	Coupeville Elementary School [2]	OLF	1	1
	S04	Anacortes High School	Ault	-	-
	S05	Lopez Island School	Ault	-	-
	S06	Friday Harbor Elementary School	Ault	-	-
	S07	Sir James Douglas Elementary School	Ault	-	-

(1) with an indoor Maximum Sound Level of at Least 50 dB; assumes 15 dB and 25 dB of Noise Level Reductions for windows open and closed, respectively.

(2) The Whidbey General Hospital is located within approximately 1,000 feet of the Coupeville Elementary School; therefore, this location was not modeled individually, but similar result for indoor speech interference for POI S03 would apply.

4.4.5 Classroom Learning Interference

Table 4-9 presents the potential learning interference for classrooms under the Average Year Baseline scenario. One of the schools, S02 (Crescent Harbor Elementary), would have an outdoor $L_{eq(8h)}$ of 65 dB, which is greater than or equal to the screening threshold of 60 dB. Three of the POI would have more than 1 event per hour with windows open (S01, S02, and R03), and 2 would have more than 1 event per hour with windows closed – 2 events per hour at S01 and S02. POI S01, Oak Harbor High School, would have the most events per hour at 5 events with windows open and 1 with windows closed.

Under the High Tempo Year Baseline scenario (Appendix G), the above-cited statistics would not change relative to the Average Year Baseline, except the number of interfering events with windows open would increase from 4 to 5 per hour at S02, Crescent Harbor High School.

Under Alternative 1, the number of events that would produce the maximum SEL/ L_{max} values varies between the scenarios, depending on the POI (see Table 4.2-3). For example, on the high end, at Admirals Drive and Byrd Drive (R06) under Scenario A, a person would be exposed to the maximum SEL/ L_{max} an average of approximately seven times per day compared to the low end, such as at Cama Beach State Park (P07) under Scenario C, where a person would be exposed to the maximum SEL/ L_{max} an average of approximately once every month.

Table 4.2-3 Maximum Sound Exposure Level (dB) and Maximum Sound Level (dB) for Representative Points of Interest in the Vicinity of the NAS Whidbey Island Complex, Alternative 1 (Average Year)[1]

		Maximum SEL (dB)		L_{max} (dB)		Number of Annual Events[2]			
ID	Description	No Action Alternative	Alt 1	No Action Alternative	Alt 1	No Action Alternative	Alt 1 A	Alt 1 B	Alt 1 C
Residences									
R01	Sullivan Rd.	121	121 (0)	114	114 (0)	26	88 (+62)	55 (+29)	18 (-8)
R02	Salal St. and N. Northgate Dr.	109	109 (0)	96	96 (0)	12	117 (+105)	63 (+51)	34 (+22)
R03	Central Whidbey	101	101 (0)	93	93 (0)	34	41 (+7)	42 (+8)	40 (+6)
R04	Pull and Be Damned Point	96	96 (0)	88	88 (0)	208	267 (+59)	249 (+41)	249 (+41)
R05	Snee-Oosh Point	92	92 (0)	84	84 (0)	733	1,033 (+300)	946 (+213)	918 (+185)
R06	Admirals Dr. and Byrd Dr.	118	121 (+3)	114	118 (+4)	267	2,650 (+2,383)	1,613 (+1,346)	649 (+382)
R07	Race Lagoon	114	115 (+1)	106	110 (+4)	55	515 (+460)	346 (+291)	132 (+77)
R08	Pratts Bluff	112	101 (-11)	105	92 (-13)	75	515 (+440)	346 (+271)	132 (+57)
R09	Cox Rd. and Island Ridge Way	92	90 (-2)	82	81 (-1)	72	23 (-49)	29 (-43)	18 (-54)
R10	Skyline	100	100 (0)	90	90 (0)	261	366 (+105)	338 (+77)	387 (+126)
R11	Sequim	73	73 (0)	60	60 (0)	74	102 (+28)	98 (+24)	109 (+35)
R12	Port Angeles	75	75 (0)	65	65 (0)	208	267 (+59)	249 (+41)	249 (+41)
Schools									
S01	Oak Harbor High School	99	99 (0)	90	90 (0)	26	111 (+85)	67 (+41)	27 (+1)
S02	Crescent Harbor Elementary School	102	102 (0)	94	94 (0)	178	298 (+120)	301 (+123)	312 (+134)
S03	Coupeville Elementary School	98	94 (-4)	90	85 (-5)	367	1,325 (+958)	807 (+440)	324 (-43)
S04	Anacortes High School	93	93 (0)	83	83 (0)	112	157 (+45)	145 (+33)	166 (+54)
S05	Lopez Island School	76	76 (0)	68	68 (0)	110	173 (+63)	125 (+15)	169 (+59)

Table 4.2-11 Maximum Sound Exposure Level (dB) and Maximum Sound Level (dB) for Representative Points of Interest in the Vicinity of the NAS Whidbey Island Complex, Alternative 2 (Average Year)[1]

		Maximum SEL (dB)		L_{max} (dB)		Number of Annual Events[2]			
ID	Description	No Action Alternative	Alt 2	No Action Alternative	Alt 2	No Action Alternative	Alt 2 A	Alt 2 B	Alt 2 C
S06	Friday Harbor Elementary School	53	53 (0)	39	39 (0)	26	20 (-6)	27 (+1)	34 (+8)
S07	Sir James Douglas Elementary	62	62 (0)	52	51 (-1)	147	206 (+59)	188 (+41)	181 (+34)
Parks									
P01	Joseph Whidbey State Park	93	93 (0)	82	82 (0)	34	43 (+9)	43 (+9)	42 (+8)
P02	Deception Pass State Park	110	110 (0)	104	104 (0)	161	665 (+504)	404 (+243)	164 (+3)
P03	Dugualla State Park	105	105 (0)	98	98 (0)	110	181 (+71)	171 (+61)	180 (+70)
P04	Ebey's Landing – Rhododendron Park	112	112 (0)	106	106 (0)	267	665 (+398)	404 (+137)	164 (-103)
P05	Ebey's Landing – Ebey's Prairie	88	88 (0)	77	77 (0)	367	1,367 (+1,000)	826 (+459)	338 (-29)
P06	Fort Casey State Park	96	96 (0)	85	85 (0)	267	1,279 (+1,012)	782 (+515)	314 (+47)
P07	Cama Beach State Park	83	83 (0)	73	73 (0)	5	41 (+36)	28 (+23)	11 (+6)
P08	Port Townsend	85	85 (0)	n/a	n/a (0)	24	20 (-4)	22 (-2)	22 (-2)
P09	Moran State Park	62	62 (0)	51	51 (0)	61	49 (-12)	64 (+3)	80 (+19)
P10	San Juan Island National Monument	95	95 (0)	85	85 (0)	372	539 (+167)	498 (+126)	572 (+200)
P11	San Juan Island Visitors Center	63	63 (0)	50	50 (0)	147	206 (+59)	188 (+41)	181 (+34)

Notes:

[1] The difference between the No Action Alternative and Alternative 2 is noted in parentheses for both the maximum SEL and L_{max} metrics, as well as the number of annual events.

[2] The number of annual events is the estimated number of times the single aircraft event with the maximum SEL or L_{max} at that POI would occur annually.

Key:

n/a = not available; the aircraft that generates the highest L_{max} at this POI is the P-8A.
SEL = sound exposure level
L_{max} = maximum A-weighted sound level
dB = decibel

Table 4.2-19 Maximum Sound Exposure Level (dB) and Maximum Sound Level (dB) for Representative Points of Interest in the Vicinity of the NAS Whidbey Island Complex, Alternative 3 (Average Year)[1]

		Maximum SEL (dB)		L_{max} (dB)		Number of Annual Events[2]			
ID	Description	No Action Alternative	Alt 3	No Action Alternative	Alt 3	No Action Alternative	Alt 3 A	Alt 3 B	Alt 3 C
S05	Lopez Island School	76	76 (0)	68	68 (0)	110	165 (+55)	131 (+21)	170 (+60)
S06	Friday Harbor Elementary School	53	53 (0)	39	39 (0)	26	20 (-6)	27 (+1)	34 (+8)
S07	Sir James Douglas Elementary	62	62 (0)	52	51 (-1)	147	206 (+59)	187 (+40)	182 (+35)
Parks									
P01	Joseph Whidbey State Park	93	93 (0)	82	82 (0)	34	42 (+8)	43 (+9)	41 (+7)
P02	Deception Pass State Park	110	110 (0)	104	104 (0)	161	664 (+503)	403 (+242)	164 (+3)
P03	Dugualla State Park	105	105 (0)	98	98 (0)	110	178 (+68)	172 (+62)	174 (+64)
P04	Ebey's Landing – Rhododendron Park	112	112 (0)	106	106 (0)	267	664 (+397)	403 (+136)	164 (-103)
P05	Ebey's Landing – Ebey's Prairie	88	88 (0)	77	77 (0)	367	1,370 (+1,003)	831 (+464)	337 (-30)
P06	Fort Casey State Park	96	96 (0)	85	85 (0)	267	1,270 (+1,003)	773 (+506)	314 (+47)
P07	Cama Beach State Park	83	83 (0)	73	73 (0)	5	41 (+36)	28 (+23)	11 (+6)
P08	Port Townsend	85	85 (0)	n/a	n/a (0)	24	19 (-5)	22 (-2)	22 (-2)
P09	Moran State Park	62	62 (0)	51	51 (0)	61	48 (-13)	64 (+3)	80 (+19)
P10	San Juan Island National Monument	95	95 (0)	85	85 (0)	372	538 (+166)	499 (+127)	572 (+200)
P11	San Juan Island Visitors Center	63	63 (0)	50	50 (0)	147	206 (+59)	187 (+40)	182 (+35)

Notes:

1 The difference between the No Action Alternative and Alternative 3 is noted in parentheses for both the maximum SEL and L_{max} metrics, as well as the number of annual events.

2 The number of annual events is the estimated number of times the single aircraft event with the maximum SEL or L_{max} at that point of interest would occur annually.

Key:

dB = decibel

L_{max} = maximum sound level

n/a = not available; the aircraft that generates the highest L_{max} at this POI is the P-8A.

SEL = sound exposure level

Table 4.2-1 Estimated Acreage and Population within the DNL Contour Ranges[1] for the NAS Whidbey Island Complex, Alternative 1 (Average Year)[2,3]

	DNL Contour Ranges							
	65 to <70 dB DNL		70 to <75 dB DNL		Greater than or equal to 75 dB DNL		Total	
	Area (acres)	Pop[4]	Area (acres)	Pop[4]	Area (acres)	Pop[4]	Area (acres)	Pop[4]
Ault Field								
No Action Alternative								
Average Year	3,557	2,995	3,030	2,345	5,587	3,377	12,174	8,717
Alternative 1								
Scenario A (20/80 FCLP split)	4,164 (+607)	3,563 (+568)	3,239 (+209)	2,117 (-228)	5,844 (+257)	3,479 (+102)	13,247 (+1,073)	9,159 (+442)
Scenario B (50/50 FCLP split)	4,172 (+615)	3,776 (+781)	3,069 (+39)	2,382 (+37)	6,539 (+952)	3,886 (+509)	13,780 (+1,606)	10,044 (+1,327)
Scenario C (80/20 FCLP split)	4,257 (+700)	4,087 (+1,092)	2,970 (-60)	2,343 (-2)	7,128 (+1,541)	4,266 (+889)	14,355 (+2,181)	10,696 (+1,979)
OLF Coupeville								
No Action Alternative								
Average Year	3,742	880	3,181	820	836	616	7,759	2,316
Alternative 1								
Scenario A (20/80 FCLP split)	1,574 (-2,168)	687 (-193)	3,013 (-168)	850 (+30)	5,976 (+5,140)	2,095 (+1,479)	10,563 (+2,804)	3,632 (+1,316)
Scenario B (50/50 FCLP split)	1,698 (-2,044)	513 (-367)	3,820 (+639)	1,133 (+313)	4,325 (+3,489)	1,609 (+993)	9,843 (+2,084)	3,255 (+939)
Scenario C (80/20 FCLP split)	3,543 (-199)	1,008 (+128)	3,649 (+468)	1,081 (+261)	1,421 (+585)	762 (+146)	8,613 (+854)	2,851 (+535)
NAS Whidbey Island Complex								
No Action Alternative								
Average Year	7,299	3,875	6,211	3,165	6,423	3,993	19,933	11,033
Alternative 1								
Scenario A (20/80 FCLP split)	5,738 (-1,561)	4,250 (+375)	6,252 (+41)	2,967 (-198)	11,820 (+5,397)	5,574 (+1,581)	23,810 (+3,877)	12,791 (+1,758)
Scenario B (50/50 FCLP split)	5,870 (-1,429)	4,289 (+414)	6,889 (+678)	3,515 (+350)	10,864 (+4,441)	5,495 (+1,502)	23,623 (+3,690)	13,299 (+2,266)
Scenario C (80/20 FCLP split)	7,800 (+501)	5,095 (+1,220)	6,619 (+408)	3,424 (+259)	8,549 (+2,126)	5,028 (+1,035)	22,968 (+3,035)	13,547 (+2,514)

In addition, Table 4.2-2 shows the percentage change in acreage and population between the average year DNL contour ranges and the high-tempo FCLP year DNL contour ranges. The higher percent change means the deviation between the average year DNL noise contours and the high-tempo FCLP year DNL noise contours is larger; however, most changes are within +/- 5 percent of zero.

Table 4.2-2 Percent Difference in the Estimated Acreage and Population within the Average and High-Tempo FCLP Year DNL Contour Ranges for the NAS Whidbey Island Complex, Alternative 1

	DNL Contour Ranges[1]							
	65 to <70 dB DNL		70 to <75 dB DNL		Greater than or equal to 75 dB DNL		Total	
DNL Contours	Area (acres)	Pop	Area (acres)	Pop	Area (acres)	Pop	Area (acres)	Pop
Ault Field								
Scenario A	0.7%	1.3%	0.5%	2.9%	1.8%	1.5%	1.1%	1.7%
Scenario B	0.8%	1.8%	-0.1%	1.0%	1.9%	1.9%	1.1%	1.6%
Scenario C	0.6%	2.4%	-1.0%	-1.1%	2.7%	4.2%	1.3%	2.3%
OLF Coupeville								
Scenario A	3.9%	8.3%	-8.0%	-8.2%	6.6%	5.3%	2.0%	2.7%
Scenario B	-6.0%	0.4%	-1.0%	-3.0%	5.3%	5.0%	0.9%	1.5%
Scenario C	-0.6%	-1.1%	-0.2%	0.1%	5.0%	2.2%	0.5%	0.2%
NAS Whidbey Island Complex								
Scenario A	1.6%	2.5%	-3.6%	-0.3%	4.2%	2.9%	1.5%	2.0%
Scenario B	-1.2%	1.6%	-0.6%	-0.3%	3.2%	2.7%	1.0%	1.6%
Scenario C	0.1%	1.7%	-0.6%	-0.7%	3.0%	3.9%	1.0%	1.9%

Key:
dB = decibel
DNL = day-night average sound level
NAS = Naval Air Station
OLF = outlying landing field

Table 3.1-3 Annual Modeled Affected Environment Operations[1] at Ault Field and OLF Coupeville (Average)

Aircraft Type	*FCLP*	*Other Operations[3]*	*Total*
Affected Environment for Ault Field			
Growler	14,700	53,100	67,800
P-8	0	10,600	10,600
H-60	0	900	900
C-40	0	1,000	1,000
Transient[2]	0	1,300	1,300
Total Airfield Operations	**14,700**	**66,900**	**81,700**
Affected Environment for OLF Coupeville			
Growler	6,100	0	6,100
P-8	0	0	0
H-60	0	400	400
C-40	0	0	0
Transient	0	0	0
Total Airfield Operations	**6,100**	**400**	**6,500**
Total Affected Environment for Ault Field and OLF Coupeville			
Growler	20,800	53,100	73,900
P-8	0	10,600	10,600
H-60	0	1,300	1,300
C-40	0	1,000	1,000
Transient	0	1,300	1,300
Total Airfield Operations	**20,800**	**67,400**	**88,600**

| *Aircraft Type* | *FCLP* | *Other Operations[3]* | *Total* |

Source: Wyle, 2015

Notes:

1 Rounded to nearest 100 if ≥ to 100; rounded to the nearest 10 if ≥ 10 (and less than 100); rounded to 10 if between 1 and 9.

2 Transient aircraft are not permanently stationed at Ault Field.

3 The term "Other Operations" includes Touch-and-Goes, Depart and Re-enter, Ground Controlled Approaches, and Carrier Controlled Approaches (FCLPs are not included under "Other Operations") for P-8A, C-40, and MH-60 aircraft at Ault Field and C-40 and MH-60 aircraft at OLF Coupeville.

5.4.1 *Points of Interest*

Table 5-5 shows the DNL for each POI. Under the Average Year No Action Alternative 6 POI would experience DNL greater than or equal to 65 dB and 3 residential POI would experience DNL greater than or equal to 75 dB. Two of the latter category would be near Ault Field (R01 and R02) and 1 would be near the OLF (R06). No school POI would experience DNL greater than or equal to 65 dB.

All but 6 of the POI would experience less than 0.5 dB change in DNL, relative to the Average Year Baseline scenario and none would be newly impacted. S02 would experience a 1 dB decrease in DNL while P08, P11, R01 and R11 would experience a 1 dB increase in DNL.

See Appendix F for lists of five flight profiles whose SEL is greatest at each POI.

Under the High Tempo Year No Action Alternative (Appendix G) one additional POI, Crescent Harbor Elementary School, would be exposed to 65 dB DNL or greater. The other statistics cited above would not change except for the change statistics relative to the Average Year Baseline scenario. All but 8 of the POI would experiences less than 0.5 dB change in DNL relative to the High Tempo Year Baseline scenario. P08, P11, R05, R11, S03, and S06 would experience a 1 dB increase in DNL while R07 and R10 would experience a 1 dB decrease in DNL.

Table 5-5. Estimated Aircraft DNL at POI for the Average Year No Action Alternative

Point of Interest				DNL (dB)	
Type	ID	Description	Associated Airfield	No Action	Increase re Baseline
Park	P01	Joseph Whidbey State Park	Ault	57	-
	P02	Deception Pass State Park	Ault	74	-
	P03	Dugualla State Park	Ault	65	-
	P04	Baseball Field (Ebey's Landing National Historical Reserve)	OLF	75	-
	P05	Ebey's Prairie	OLF	52	-
	P06	Fort Casey State Park	OLF	62	-
	P07	Cama Beach State Park	OLF	<45	-
	P08	Port Townsend	OLF	<45	+1
	P09	Moran State Park	Ault	<45	-
	P10	San Juan Islands National Monument	Ault	54	-
	P11	San Juan Island Visitors Center	Ault	<45	+1
Residential	R01	Sullivan Rd	Ault	90	+1
	R02	Salal St. and N. Northgate Dr	Ault	77	-
	R03	Central Whidbey	Ault	57	-
	R04	Pull and Be Damned Point	Ault	61	-
	R05	Snee-Oosh Point	Ault	56	-
	R06	Admirals Dr and Byrd Dr	OLF	79	-
	R07	Race Lagoon	OLF	61	-
	R08	Pratts Bluff	OLF	63	-
	R09	Cox Rd and Island Ridge Way	OLF	51	-
	R10	Skyline	Ault	56	-
	R11	Sequim	Ault	<45	+1
	R12	Port Angeles	Ault	<45	-
School	S01	Oak Harbor High School	Ault	60	+1
	S02	Crescent Harbor Elementary School	Ault	64	-1
	S03	Coupeville Elementary School	OLF	59	-
	S04	Anacortes High School	Ault	48	-
	S05	Lopez Island School	Ault	<45	-
	S06	Friday Harbor Elementary School	Ault	<45	-
	S07	Sir James Douglas Elementary School	Ault	<45	-

No POI in "A" for 1A 1B or 1C

Figure 4.2-4 Alternative 1C DNL Noise Contours for Ault Field

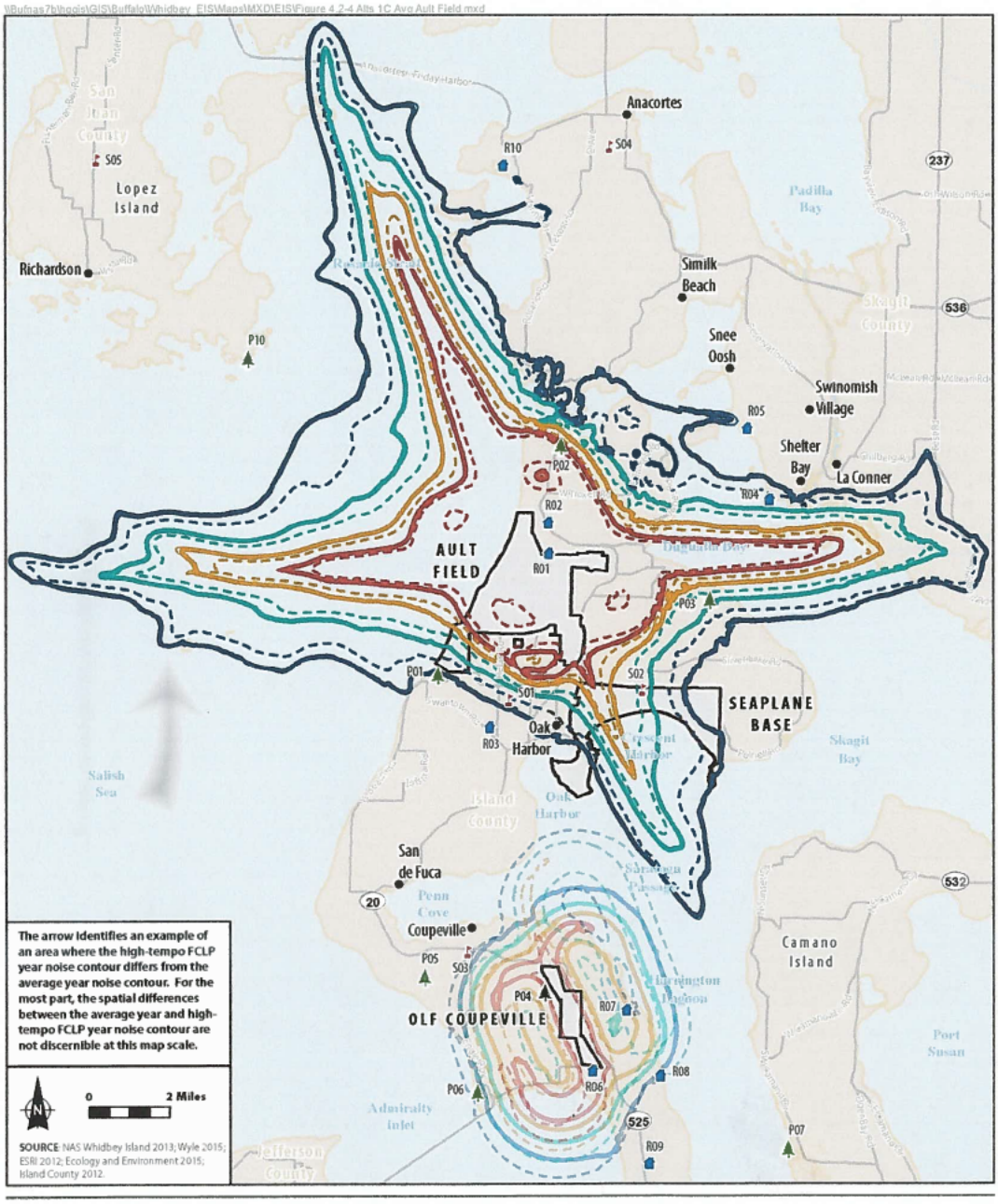


Figure 4.2-4
Alternative 1C DNL Noise Contours for Ault Field
Whidbey Island, Island County, WA

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